

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XVI

GRAND RAPIDS, MICHIGAN, JUNE, 1917

No. 6

SPECIAL MEETING OF THE COUNCIL, BATTLE CREEK, MICHIGAN, MAY 10, 1917.

A special session of the Council, in compliance with the call issued by the Chairman as published in the *Journal of the Michigan State Medical Society*, May, 1917, was called to order in the Post Tavern at Battle Creek at 8 p. m., May 9, 1917, with the following Councillors present: A. L. Seeley, A. M. Hume, W. J. Kay, W. J. DuBois, A. E. Bulson, S. K. Church, F. C. Witter, C. T. Southworth, B. H. McMullen; President, A. P. Biddle; Secretary, F. C. Warnshuis.

In the absence of the Chairman, Dr. W. T. Dodge, Vice-Chairman, Dr. W. J. Kay, presided.

President Biddle addressed the Council as follows:

The object of this special session of the Council is clearly defined. First, to devise means to secure Michigan's quota of Physicians for service in the War. The plan which is being carried out will be submitted by Dr. Reuben Peterson, Chairman of the Michigan Committee on Medical Preparedness. Secondly, to provide some practical means to safeguard the interests of those who enter the service of the United States. And thirdly, to devise some working plan to care for the families of those who go.

Some definite plans must be worked out tonight, to be presented to the meeting of the House of Delegates tomorrow for their acceptance or amendment.

Dr. Burr was invited by the President to address the meeting. He said: "Dr. Biddle refers to this as a tremendous responsibility and such it is indeed. Justice must be done to the physician who has gone to the front. We must plan something to relieve his necessities, retain his practice and his hospital appointments and keep his house in order so that when he returns he will find himself measurably comfortable and be well situated to take

up the old ends and knit together his practice. With this in view, I suggested in a recent article in the *Journal* that there should be appointed in every County Medical Society, a Committee composed of its most conscientious members to visit the families of physicians who have gone to the front and assure themselves that they lack nothing; that a fund should be created and placed in each County Society's Treasury to afford relief in need. This fund should be established and maintained through assessments and might be augmented from month to month by subscriptions or voluntary contributions. I also suggested that another fund be created for procuring luxuries for those at the front.

Such in brief is the plan which is more fully discussed in the *Journal*. It should be emphasized, reiterated, and said again that the men at home should accept appointments with the understanding that they are interim only and assume the care of patients of the men in service temporarily. They should be in honor bound to complete unselfishness. There is abundant opportunity for piracy. Not many, I am sure, will avail themselves of such opportunity and none will do so who are worthy of the name of physicians. The occasional pirate must be looked after by the decent body of men and I know of no other way than through the instrumentality of the County Medical Society. Dr. Warnshuis presented to me recently a plan that impressed me as in some respects superior to my own.

Discussion of the Proposed Plan was then engaged in.

It was moved by President Biddle that the Council be requested to present this plan to the meeting tomorrow, at a time specified by the President, and to urge its adoption.

Supported by Dr. Seeley. Carried.

Dr. Peterson then gave a report of the Medical Defense Committee.

It was moved by Dr. Hume, that at the proper time Dr. Peterson as Chairman of the Committee on Medical Defense, be requested to

present these facts to the House of Delegates. Carried.

It was moved by Dr. Southworth that the fall meeting be postponed subject to the call of the Council.

Supported by Dr. DuBois. Carried.

It was moved by President Biddle that the editor be authorized, during the period of war, to do what in his judgment and the judgment of the Publication Committee of the Council seems best to safe-guard the interest of the Society. Supported. Carried.

There being no further business the Council adjourned.

SECOND SESSION OF THE COUNCIL.

The second session of the Council was held at the Masonic Temple in Battle Creek at 12:30 p. m., on May 10, 1917. The Secretary reported that the House of Delegates and the General Session had unanimously adopted and approved a plan submitted by the Council for the conservation of the practices of members enlisting in the services of the United States Army and Navy.

Dr. McMullen, Chairman of the Finance Committee made a report recommending that the Secretary spread a special assessment of \$5.00 per member to create the Emergency Fund provided in the plan that was adopted. This was supported and carried.

The Chairman of the Finance Committee also recommended that the Secretary deposit this fund in a special bank and that the disbursements of this fund be effected by means of a voucher system signed by the Chairman of the Council, Chairman of the Finance Committee and Secretary of the Society.

It was moved by Dr. Seeley, supported by Dr. DuBois, that the working features of the plan adopted be referred to the respective Committees of the Council who are instructed to supervise the carrying out of all features advanced in the plan that was adopted for the conservation of the practices of enlisted members.

There being no further business the Council adjourned.

W. J. KAY, Chairman.

F. C. WARNSHUIS, Secretary.

Minutes of the Special Meeting of the Michigan State Medical Society, Held at the Masonic Temple Battle Creek, Michigan, May 10, 1917

The Michigan State Medical Society met in special session, at the Masonic Temple, in Battle Creek, on Thursday, May 10, 1917, at 10 p. m., in compliance with the call that had been issued by the President of the Association, and as published in the *Journal of the Michigan State Medical Society*.

The meeting was called to order by Dr. W. L. Godfrey, President of the Calhoun County Medical Society.

Following a few introductory remarks, Attorney Joseph L. Hooper was called upon for an address of welcome.

MR. HOOPER'S ADDRESS.

Mr. President, Gentlemen of the Michigan State Medical Association:

I am here in a double capacity today—I have been asked to formally welcome you, this body of Michigan's medical men, to the city of Battle Creek, which I do most heartily, and cordially. You will find—though the most of you know something of

Battle Creek—that it is a city of hearty welcomes; that she is glad to receive visitors, and especially visitors of the character of the men who are here today in our midst. So I am not going to spend more time in my welcome here to you except to say that Battle Creek is glad that on this occasion, this auspicious and yet most serious occasion, the medical men of Michigan have the fortune, and we have had the good fortune to meet here today.

I have been asked by my friends upon the platform here to do more than this—to speak of the occasion upon which we are assembled here; to say something of its import—the chief reason perhaps.

I do not know as anything that I could say here at this time that would impress upon men of the intelligence that men must necessarily possess who are doctors, as to the seriousness of this present occasion. I can only say something of the moral character of the occasion with which we are confronted at this time, and of the position which the physician and the surgeon occupy.

I believe, and this is not original with me, for many have uttered it before, that we are confronted now by not only the most serious crisis in American history, but the most serious crisis that the world

has ever seen. The very aspect of this room proves that. One would not need to look beyond the flag of our country to the banners of England and France, which for the first time in the history of this city at least, are gathered together and draped in the same building, to know that events, stirring and momentous, and freighted with utmost importance to the history of the world are confronting us. We know now, although it has taken a long time for our eyes to be opened to the fact, but we know now that we are engaged in the most titanic contest, with the greatest issues at stake, that a nation has ever engaged in, in the history of all time.

We know that upon one side are lined up the forces of Democracy, not the forces of anarchy, not the forces of rebellion, but the forces of a Democracy of the type represented by England and her own glorious ally the French, (applause) and by our own Republic—we know that upon the other side guided by intelligence, guided by efficiency, guided by all that science and art have been to the world, are lined up a people who in themselves have the inherent seeds of democracy, of republicanism, but who have been led on by that star of militarism which we are to pour out all our blood and treasure to wipe from the earth and give to Germany and to Austria and all others like them a government of democracy such as is enjoyed by Great Britain, France and the United States (great applause).

This is the issue, and this is the real thing before us. Somebody has said that the world must be either all Republican or all Cossack. The world is not going to be Cossack but it is going to be Republican! (Applause). Democracy must march on with triumphant progress because it is in the very nature of things, that which can remove the canker upon society such as the Prussian military autocracy has made itself. We Americans must not be remiss in our duty; we must not be "slackers," we must not die like slaves in the night, but with the might which comes with right we must battle for truth and justice. We must do our duty, first, last and always in this enormous struggle for the emancipation of those who now are enslaved by the thrall-dom of militarism. (Applause).

You medical men—it seems strange to me when I look at you here, and think of your mission for alleviating pain and suffering, that I should stand here and attempt to stir you in any way toward helping our country in time of war. It is not necessary for me to do this, or even talk to you along that line; but we must realize, we must get into the seriousness of it—we must come everyone of us individually to remember that just as long as any of us is derelict in his duty, our country is not one hundred million strong as we would have it. We are at war with imperialism—it is not, as President Wilson has said, that we are seeking indemnity for the wrongs done us; it is not the acquisition of new territory—not that at all—but there is a great moral debt resting upon us that we must discharge and if America is to justify herself in the world's history; if she is to do what we have believed America would do when great crisis arose—we must rise as one man and meet the issue.

In the darkest days of the Revolution, when our

country lay bleeding and prostrate, France sent her noble young son to our shores and he laid his virgin sword at the feet of Washington. We must not be derelict in our duty. Conscription or no conscription, volunteer or no volunteer, let us send them back our own bravest and best. Let us send back our ex-President, Theodore Roosevelt to France (great and prolonged cheers). Let us send him back with his Republican army; let the people of France see the gleam of Yankee steel. Let them see the flag wave over an army of Americans and it will give heart to the struggling women and fainting men; to the Allies who are now our allies, who have been fighting our battles and the battles of humanity. Let us do it. (Applause).

And let us remember that in entering this strife, we are entering it with powers numbering over one hundred million; remember that they are strongly entrenched upon their own territory; that they have food; that the motive that controls them will and does lead them to use poisonous gas, piracy, murder, rape or whatever other crime that may seem expedient to beat us—remember that the German newspapers say that after the war they do not care who pays them an indemnity, but they must have a good thumping and indemnity, and some want it amended by striking out all after the word "thumping." Remember that they will be with us—they will fight. We can talk here today, but we must *do*—we must act for tomorrow.

I could talk about this much longer, but I have been asked to limit my time to ten minutes. I do wish to say to you, gentlemen, that I have been glad for the privilege of putting these things, which we all know. I am saying nothing new, before this capable, representative body of Michigan citizens and professional men. I am not dealing in extravagance when I say that nearest to the men of my profession, in my heart, have always been the members of the medical profession. I know the value of the services of the medical profession to the world. I know how much they have always given up, the sacrifices for their profession and for science, but the greatest sacrifices are yet to come. Men must leave their families; leave paying business; they must do things that will be a positive harm to them, *but it is for our country.*

And after all, one country, brethren,
We must rise or fall with the Supreme Republic
We must be the makers of her immortality.
Her glory, fame, her freedom or her shame,
Liegeman of God and fathers of the free.

After all, 'tis freedom,
Wears the loveliest coronal,
Her brow is toward the sunrise;
From the sod she breaths the breath of patriots.
Every clod answers her call and rises like a wall
Against the foes of liberty and God.

At this point in the proceedings the meeting was turned over to the State Society, with President A. P. Biddle in the Chair.

Dr. Biddle: I shall ask the Secretary to read the call of the meeting.

Secretary: (Reads Call.)

Chairman: In this time of great stress, we would not do otherwise than to ask divine blessing on our deliberations:

Invocation by Rev. Barnes.

DR. BIDDLE.

Members of the House of Delegates and other Members of the Michigan State Medical Society:

It has seemed expedient that I should call you together at this time for a solemn purpose and have asked all speakers to dwell upon this solemnly. It may be that this gathering will be epoch-making.

It took not more than 11,000 men to conquer Cuba and less than 20,000 to take the Philippines. Today, as war is waged, this is a mere handful, for we reckon now by the million. So I shall try to explain why it is that the medical profession must give to the services of the government so large a quota of its membership.

During the Spanish-American war but few medical officers were needed; a few attached to each regiment and a few others called from civil life; but today it is calculated that for every 1,000 personnel seven doctors are required. This number takes in only those who are actually with the troops and does not take into consideration those engaged in Red Cross work, those held at base and city hospitals or engaged in other military relief work. So it is estimated that at least 10,000 physicians will be required for every million of personnel. And, if the government is to raise, as it is said, 2,000,000 men, it means that it will need in its service 20,000 doctors gathered from throughout the United States. Not all of these will be engaged at the same time, but there will be those who are in active service and those held in reserve to take their places; for, remember, the battle of today takes the life of the doctor as it does the life of the fighting man. At the Battle of the Somme there were hundreds of doctors lost, so I think that before we get through at least 25,000 physicians and surgeons will be needed.

I have been asked to explain the status of these physicians. In the first place, the Medical Corps of the Regular Army, while an excellent and efficient nucleus, is not and never will be in times of peace sufficient in number to meet the exigencies of war.

Here 1,000 to 1,500 more medical officers are needed. To meet the laws governing promotion and retirement those who desire to enter the regular service must be below 35 years of

age, preferably below 32 years. They should make application direct to the Surgeon-General, United States Army. If accepted, they will probably be sent to the Army Medical School, Washington, D. C., for training.

Secondly, if a new army of 500,000 men is to be created, 3,500 medical officers will be needed to examine the personnel and to take care of the officers and men afterwards. Here the younger physicians also are desired, men preferably not over 45 years of age.

The older physician or surgeon enters upon duties with which he is familiar, the hospital ward which has been his accustomed walk; but the younger medical officer must be also (and primarily) a military man. He has charge of men and is responsible for them. He must know how to handle them, must familiarize himself with camp sanitation and with a tremendous amount of detail paper work, for the record of his cases must be complete and exact. Besides, especially if he be attached to the ambulance service, he must learn how to handle the sick and the wounded. These younger men will probably be sent to the training and mobilization camps, later to go with the troops to the front.

At the time of the Spanish-American War most of the troops came from the National Guards of the States and when mustered into the service of the United States, became U. S. Volunteers, though retaining their State designation. So when the first troops left this State in 1898, we went as the 31st Michigan Volunteer Infantry, (taking the number after the 30 regiments of infantry which served during the Civil War). With these troops I had the honor of going as Major and Surgeon. Two assistants medical officers accompanied the regiment, one with the rank of Captain, the other with the rank of First Lieutenant.

In peace time this number is sufficient, but we found when we got to the Southern mobilization camp, when illness came among us, that we needed extra medical men, and we drew from civil life the contract surgeon. Now the contract surgeon was in an anomalous position, satisfactory neither to himself nor to the government. He had the relative grade of a First Lieutenant; but no matter how long he remained in the service, or how efficient he was, there was no advancement; and in the army the inducement of service is advancement.

Eight years ago the government conceived the plan of taking over from civil life the brain and experience of its best physicians and sur-

geons. The corps was known as the Medical Reserve Corps, which in time of peace was to prepare men for service in war. A commission was issued either as a First Lieutenant, Captain or Major. The First Lieutenant was expected to attend camp instructions and drilling once a year for the purpose already stated, but service was not obligatory, even in war time. The Captain and Major Surgeons were not to be called upon for service in the field in time of peace, because it is not absolutely necessary for officers of these grades to have military training.

Gradually Congress improved the status of this corps; but, because of the lack of authority to call the officers into service when needed, it will pass out of existence on June 2nd, and be merged into the Officers' Reserve Corps. Those accepting a Commission in this latter Corps will be commissioned by the President for five years. During peace time the medical officer holding rank of First Lieutenant will be expected to attend once a year a camp of instruction, but during war times the service of all doctors of the Officers' Reserve Corps are at the disposal of the government. If any of you now hold a Commission in the Medical Reserve Corps, you must be recommissioned in the Medical Section of the Officers' Reserve Corps; but you have not accepted the new commission until you have taken the oath of allegiance. When accepted, however, the Government can send you anywhere where the exigencies of the service demands. When the new army is created it is probable that it will need a great many medical officers and the government will draw upon the Officers' Reserve Corps for this quota.

After the Spanish-American war the efficiency in this country and abroad of the Red Cross Service in national emergencies, such as floods, earthquakes, etc., became so marked that it was incorporated as a National Body, of which the President of the United States is the titular head. This body has offered its services to the government in case of war, and the government has accepted the service, provided it, the Red Cross, meets the standard set up by the government; in other words, the government has accepted the Red Cross Base Hospital Unit, provided its equipment is up to the standard of a military 500 bed hospital. The equipment must be provided by private subscription, but the moment the Unit is accepted by the government, the government takes it over and finances it and details a certain number of its medical officers to the hospital. There are certain

advantages which go with such a Unit. One works with the men with whom one has been accustomed to work. I think the understanding is that those who go with the base hospital pledge themselves to go for two years, but I do not believe the government is under obligation to hold the medical officers to this service. If after the two years, the services of these officers are further needed in France, I see nothing in the law to prevent the government from making use of them. The Red Cross Base Hospital is a civil body taken over by the government and after the war it returns to its own and waits for the next emergency. The name given to the Base Hospital is simply complimentary and usually refers to the locality in which the hospital is equipped. It requires a large personnel, a certain number of doctors, nurses, etc., in all about 225.

There is another force which the government will take or already has taken into its service, and which, from the present prospects, will see the firing line before the troops are equipped next September. I speak of what is known as the National Guard of the State. When accepted by the general government it becomes a part of the Federal Guard and is a part of the regular army.

There are also many advantages in being with the Federal Guard. One goes with men one has known in one's own town; one stays with these men, because the government has promised that the Federal Guard will be retained as separate Units. One will care for the men one has known, and sweeter than all, one will return with the men with whom one has slept and fought, and who will be the best friends one will ever have. The sweetest experience in my life has been the association with those who went with me to the Spanish-American war. I say this, because some think that association with the Federal troops is less desirable than a commission in the Officers' Reserve Corps, but this is not at all necessarily the case.

A few words as to where those of you who go to the front will be sent. A certain number must be with the soldiers on the firing line, or in the trenches, or wherever they may be. It requires youth to be there. Men of my age can not expect to stand the hardships that men do who are from 23 to 35 years of age. Those who have charge of ambulances must frequently be on the firing line, and to this the young man only should be attached. Back of this is the evacuation hospital, where those who have been

injured must be examined and, when dangerously wounded, immediately cared for; and those less dangerously wounded and less ill will be sent further back. Here also, must there be facilities for the treatment of wounds which are not of a serious nature, so that those men may be returned as quickly as possible to the firing line. Back of this, the distance to vary according to exigencies, is the base hospital, and possibly further down the line, the City Hospital. So you see how many medical officers are required to meet the demands of war.

One word more to you. I want you to know that those of you who go away will have the care and guidance of the State Medical Society. I want you to feel that we only wish that we were younger men, so that we too could go to the front. Another purpose of this meeting is to present to this society for consideration definite plans for the care of those who go; not so much a financial care as the care of their families. My experience has been that almost every physician is brave enough to go wherever duty calls him, but he is anxious for the wife, or the baby, or the mother or the sister left at home; and I promise you that these members shall be taken care of wherever we find that such care is needed.

We know that it is a sacrifice to go, but the medical profession is a profession of sacrifice; so I ask of you who can to go, not because you love your family less, but because you love your country and freedom more.

Chairman: I want a few words from a man who has always been in the front rank in defense of patriotism and freedom.

During the Spanish-American war we went out with practically no medical equipment. Soon after our arrival at Chickamauga Park, Ga., May, 1898, I met on the road outside of the camp this man, who asked me what he could do for us. I said: "We have nothing. We need everything." He went back to his home and within one week sent me \$100.00, collected from the citizens of Flint, and with the \$200.00 which Governor Pingree of Michigan sent me, we had enough to establish a credit in Chattanooga, and to obtain the necessary temporary supplies.

I introduce to you Dr. C. B. Burr of Flint.

-DR. BURR'S ADDRESS.

Mr. President, fellow members of the State Medical Society and other fellow-citizens of this magnificent democracy, of which the starry banner over my head is the symbol—a democracy born with

the Declaration of Independence—established under Washington, and the Revolutionary patriots—re-enforced and amended by the Immortal Lincoln who declared that government of the people, by the people and for the people should not perish from the earth—maintained through stress and storm, by Cleveland, by McKinley, and by that gallant soul, Col. Theodore Roosevelt (applause)—and now re-affirmed in beautiful diction in that sublime state paper of Pres. Woodrow Wilson. (Applause).

I thank God every day, if I don't do it audibly, and in a conventional way, at least I do in my heart, that I live in a land where the poorest and the humblest individual, has rights which the wealthiest and the greatest is bound to respect. I live in a land, and I pray that I may continue to live in a land under these influences and these conditions—not dominated by Kaiser or Czar or King, or controlled in any measure by pusillanimous princes, but where the people have some rights and can give individual expression to what they want and what they think is expedient for them; where men are not driven to slaughter—I use the word advisedly—"led" is out of fashion in war—those that drive men to war under imperial edicts, are themselves in bomb-proof compartments. There is no more leading but men are driven, as cattle to the shambles.

Against that sort of thing this nation has enlisted to do its part. It has enlisted along with those fighting under these flags (pointing to the British and French flags). They are foreign flags no longer—but flags of countries that with the assistance of this country, will, I hope and pray, and devoutly believe, eventually establish the principles of democracy for all time.

The world has been cursed with Kaisers and Emperors and Kings long enough. I got off a similar expression to this in a patriotic meeting in Flint some weeks ago, and afterwards Dr. Manwaring told me that there came to his office a woman who said that she had never seen Dr. Burr before, until she heard him at this meeting, and "didn't know up to that time that he was an anarchist." I deny being an anarchist, but if it is necessary to apply a name to those who wish to be a little out of the way, who have outgrown medieval fuss and feathers of courts and castes and kings, why, I am willing to range myself along with those who want them out of the way, under whatever name you may call them.

On a ship going over in 1909, I became very well acquainted with a German, a manufacturer, living at Elberfeld, and a very fine fellow. He asked me where I was going, and I told him to the Kraepelin Klinik in Unnich and that I liked Germany very much. He asked me why I liked it and I gave various reasons—the art, the music, and the many attractions. These are the things that I like about Germany. I told him that Bavaria—I know little personally of Prussia—was restful to me, and I liked to go there.

Then he said, "I like the United States," and went on to tell me why. He said, "You are not afflicted there with castes as we are in Germany." He told me about social planes, first the Emperor and his Court, then the high Military Officers, then the high Officials of the Government, then the Ju-

dicial Officers, then those in education, the doctors of letters and so on, and on down pretty nearly to the bottom, were the ordinary physician and lawyer, and at the very bottom, was the manufacturer. "We are at the very bottom of the whole lot," he declared. I said "I think the most influential man in Flint, is a manufacturer." But said he, "Not so with us; but when an officer of the army wants a wife that will be thrifty and make him a good home, and bring up his family nicely, he 'comes down' to our caste, and takes her, and thereafter our sister is lost to us. We may not even visit her. That is why I like the United States."

Well, I presume that poor fellow's bones are bleaching somewhere in France—but there must be a lot of this very sentiment in Germany, unorganized. I am afraid that, any hopes of revolutionary proceedings in Germany to contribute to the termination of these awful war calamities, is not well based, because of the habits of thinking that have been instilled and driven into their "subjects" by those at the top who have dominated all the forces, mental and physical of that wonderful country.

Those of us who have nearly completed our lives, are, it seems to me, very fortunate that we have lived in the most interesting period of the world's history. We have seen a great deal of what is called progress—how much of what we call progress is but a veneer, I do not know. Certainly, ideals have all been shot to pieces, since the Kaiser put his cloven foot in Belgium. We think now, in terms of slaughter, we talk of these things—they have become almost the only topics of conversation. It seems to me that I had never seen in the former decades of life, so much progress in the altruistic, as in the decade previous to the outbreak of this war, but it has all gone aglimmering and what is there—the seed of it that is left—that exists no doubt—will have to ripen again. It will bring forth fruit in the times of reconstruction—God only knows when. Sinister influences have been at work, and our ideals have been destroyed. All the arts and the sciences, save one group, are devoted now to purposes of destruction. Physics, the industrial arts, chemistry, even photography devoted to destruction, and the only sciences and arts engaged in mending that which is broken and maintaining that which is well, are medicine, and the arts of sciences thereto allied, dentistry, nursing, pharmacy, etc. Is not that fine? I have never been so proud of my vocation, as during the last two years. It is the only conservative force in war that I know of. Even agriculture devotes its products largely to the maintenance of armies.

We are in a more topsy-turvy condition and in a more general mix-up than we might have been if we had begun two and a half years ago to get ready, but we will get things all adjusted after a time and will soon be in a state of relative readiness. Those who have gone and are going to the front, preach the gospel of preparedness more impressively than anything we can say. It is a strange thing that so recently as six months ago, a physician said "What is the use of all this preparedness agitation?" "And what is the use of so much money being expended? If one-half of the amount were spent in education, there would be much more good

come from it." Platitudes of this sort which ignore the obvious facts of life have been too common, but they have now lost any force they ever had and we are up against it. We are not ready but we will get ready unless I mistake the American spirit and the physicians here are going to do their part. (Applause). They will do their part cheerfully and willingly; they will bear the brunt, and their labors will be of a ghastly, sorrow-provoking, troublesome character, but they will meet the emergency—that I have no doubt of at all—and your presence here indicates that you are of the same mind.

We have paid a high price for crowned heads, and I hope and pray that the remaining ones will be uncrowned. We must relearn that there is something in the world besides efficiency—efficiency is not everything—I have grown almost to abominate the word. There are humanities, kindly sentiments, emotions that are worth-while—all these things that have been exemplified in this country, which must eventually come back into their own; and dominate as they have dominated here for the last one hundred years. Crowned heads, court intrigue and secret diplomacy will have to go when democracy is triumphant. In a few years there will be a revolutionized world, and in the re-building of that, the physicians will have their part as they have always had a part in doing those things which make for good. They will not fail. (Applause).

Chairman: We will now listen to the report of the Chairman of the Michigan Committee, Dr. Reuben Peterson of Ann Arbor.

Mr. President and Members of the Michigan State Medical Society:

I desire to make a brief report of what has been accomplished by the Michigan State Committee for Medical Preparedness. This committee, as you know, was appointed by the Advisory Committee of the Council of National Defense to secure from among the medical profession of Michigan 600 physicians for the Reserve Corps of the United States Army. The first plan tried, the selection of six hundred or more physicians by the committee followed by requests from the War Department for those selected to join the Reserve Corps, was not very successful. War had not been declared and very few physicians took advantage of the request to enroll.

When war was declared and it became evident that a large army would be raised, the Advisory Committee tried another plan which I am glad to say has been very successful. It directed each State Committee to appoint auxiliary medical defense committees consisting of prominent physicians in every county or, in certain instances, groups of counties in the State. These committees were to canvass thoroughly physicians in their respective counties between the ages of 22 and 55 and urge all, professionally, physically and morally fit, to send in their applications for the Medical Reserve Corps.

As Chairman of the Michigan State Committee, I am pleased to report that the entire State has been thoroughly organized according to the plan outlined above. Fifty-nine county committees have been

appointed, the chairmen selected and the entire machinery provided so that the best physicians in the State may have the opportunity of applying for positions in the Medical Reserve Corps. One can see at a glance the advantage of such a system for securing the very best men in the State for the Reserve Corps. No State Committee can hope to know personally the physicians in each county and their fitness for the Reserve Corps as can the members of the county committees, and this is very important for there is no room in any army for physicians of a certain type, those who are unfortunate enough to be victims of bad habits, who are alcoholics or addicted to the use of drugs.

The State Committee, then, places the responsibility for the selection of the men for the Reserve Corps upon the county committees which are supposed to exercise due care in their recommendations.

There has been some criticism about not hearing from the War Department after application blanks have been sent in, but it must be remembered that there have been thousands of applications for the Medical Reserve Corps during the past few weeks with a corresponding rush of work in the War Department. Again, they may be waiting for June 3rd next when the new Medical Officers' Reserve Corps, comes into existence. In the end all commissions will be duly issued up to the number needed for the war.

It gives me great pleasure to inform you that there are excellent prospects that Michigan will furnish her full quota of physicians for the Medical Officers' Reserve Corps, if we can judge by the returns received from the chairmen of the different auxiliary defense committee throughout the State. I have received reports up to yesterday from thirty-six chairmen who report in their respective counties 1576 physicians between the ages of 22 and 55. Of these 998 have been recommended for the Reserve Corps. Although of this number only 116 have actually sent in their applications, undoubtedly many applications will result from this meeting, since many have delayed until they could learn if their services were actually needed. As far as I am able to learn, about one hundred Michigan physicians have already been commissioned. Thus in a comparatively short period nearly two-thirds of the number of medical officers required from Michigan have already been secured. I doubt not that in a relatively short time we shall see 600 medical officers enrolled from Michigan and more if the country needs them.

THE DUTY OF THE MEDICAL PROFESSION OF MICHIGAN IN THE PRESENT NATIONAL CRISIS.

REUBEN PETERSON, M.D.

Chairman Michigan State Committee For Medical Preparedness.

ANN ARBOR, MICH.

Events have been moving apace since the call was sent out summoning the members of the Michigan State Medical Society to meet in extraordinary session. One is fairly bewildered

at the tremendous activities pertaining to war in which seemingly the entire country is engaged. It is as if a powerful sleeping giant had been aroused and were preparing to give battle to an equally powerful but unscrupulous adversary. On every hand we see agencies at work, directed by the government at Washington, to prepare one hundred and ten million people for the task before them. Gone are the academic questions that have been troubling us for the last two and a half years. It is well that this is so, for as a nation we were becoming confused over questions which, after all, related to international law with which only a few were familiar. What a relief to put this all in the background and come out in the open. What a privilege to be allowed to put our hearts and souls into a task big enough for any nation, the settling of the question whether we are to be free or slaves. For let us not forget in this most solemn hour that if we do not win in this struggle, as win we will, that America, the land we love, will no longer be the land of the free but a country dictated to by a power whose ruthlessness has only too well been demonstrated during the past two and a half years. Is there one of us who would not sacrifice his all, give life itself, rather than to submit to such a condition of affairs?

Thank God, the time is past when a speaker has to pick and choose his words lest he offend some of his auditors. Whatever may have been our differences of opinion, they have disappeared now, swallowed up in the great patriotic impulse, sweeping the land, to do our best in the struggle before us. Where are the deeds of violence, the springing to arms of five hundred thousand trained reservists owing allegiance to another country? Where are all the dreadful things which were going to happen to us if war were declared? A few hundred or thousands have been arrested by the secret service but so quietly as to cause hardly a comment. Already in the excitement of getting ready for the struggle we have forgotten who strove to arouse our fears. For we have turned to the reverse side of the picture and are amazed and proud withal, as amazed as must be those on the other side of the water who thought differently, to see the citizens of a mighty nation united in a common cause. It is one of the most amazing and splendid things in history, this unity in a nation, where it was hard to impress upon the people that there was any real danger to their national institutions.

As a nation we have been called many harsh

names, epithets it was hard to hear and not strike back. Most of us became somewhat restless under it all and were inclined to think we could do things much better were we given a chance. Yet, as we gird up our loins for the battle, the greatest conflict the world has ever known, are we not glad we have as a leader, as Commander-in-Chief of the Army and Navy of these, the United States, one whose vision was clearer than ours, who bore abuse without a murmur until the hour came when the entire nation as one man was ready to accept the gage of battle? In such a man and those he has gathered about him we have infinite trust.

Politics! How insignificant the word sounds amid our more serious perplexities. Do you know the party affiliations of the members of the Council of National Defense, the Navy Board or many other agencies at work in Washington? The nation demands that the work be done by our best, and cares little for extraneous matters that meant much before the war. Woe to him occupying a high position who can not or will not see this. The country has had enough of experiments and the voice of the people heard at Washington has been responsible for the universal military service bill, revolutionary so far as this country is concerned, yet passed by both houses of Congress by large majorities; and so it will be with other equally important measures. The times are too serious and the stakes too great to spend time over trivialities. Mistakes will be made, to be sure. No war can be prosecuted without mistakes. It simply is a question of who will make the fewest and recover quickest. We are fortunate in being in a position to profit by the mistakes of others, and we shall profit by them, for with all our faults it can not be said that the American people are hidebound and unready to adapt themselves to the need of the hour.

This then shall be the reply to those who have scoffed at America, who have claimed she has a vulgar soul and is merely striving for wealth, that she has become flabby and that her fighting qualities are a joke! We realize that we have been careless about some things, such as preparedness, which were important but did not interest us much; we confess that we are a peaceful nation and that we have stood more than most countries would without hitting back; we confess that we continued to play the neutral game when our hearts were not in it; but, in spite of all this, now that the die is cast and we are in this terrible struggle there will

be no turning back no matter who draws out or who comes in. To the cause of democracy, as against autocracy and the military overlords, we pledge the united strength and energy of a nation whose spiritual and material development has been the most remarkable in the history of the world; and last but not least, we pledge our own lives and those of our sons to the cause, ready to make the necessary sacrifices which we know only too well are coming; and we will do all this with no particular hate towards those who have deserved the hate and scorn of civilized nations but only as a means of overthrowing a system of government which has been responsible for this world conflict which we hate and despise as too utterly silly and idiotic for words. And when the task is done, we pledge, furthermore, that we will return to our pursuits with glad hearts and be as unmilitaristic as before.

And now, how are we doctors of Michigan to do our part, for I assume that this gathering means that we recognize the need of clear thinking and planning that our efforts may be productive of the greatest good. We are most fortunate in entering the war under the guidance of an Army Medical Corps which has been entirely reorganized since the Spanish-American war and now has a personnel equal to any in the world. The old abominable army contract surgeon system has been abolished and through the establishment of a Medical Officers' Reserve Corps the medical service in the Army has been placed in a position where any civilian doctor can serve without feeling that a slur is being cast upon his professional services.

It is not strange that there should be confusion in the minds of civilian physicians in regard to the different kinds of medical services in the Army and Navy, for in times of peace the average doctor, with an occasional exception, takes little interest in such matters. Suddenly he is confronted with a situation where the call comes for many thousands of physicians to render medical aid to a large army. Sacrifice of time and leisure is nothing new to the doctor for it has been a part of his daily life. Above all other callings and professions the members of the medical profession have always responded to the call of duty. They are ready in the present crisis if they can be shown that their services are really needed. But a doctor must be convinced of this else he will think that he has a greater duty to his patients who desire and need him and are not satisfied with the

services of another physician no matter how skilled he may be.

Thus the first question we must settle today is that vital one of whether we are needed. This is even more important than the kinds of services, the enlistment period, the amount of compensation and many other seemingly urgent questions which have been asked me during the past six weeks.

Now make no mistake about the need. We are needed fast enough if we can judge by what has happened during the past few weeks. Most people's minds are dwelling on whether the submarine menace is going to be met, or upon how many or when troops are to be sent to the western front. But these are things which are being discussed. What is being done is to send over within a week or two Red Cross Units and physicians unattached to any units. Why is this being done and the other still under discussion? The answer is simple if we put the facts in a form familiar to us. Any one of us would be fairly busy if he had six or twelve accident cases on his hands in one day. But what is that compared to what is happening on the western front at the present time? The cry is for doctors and more doctors, don't forget that. Every one of us will be needed but only the chosen few can go. Recently a call came from the War Department for thirty or more doctors from Michigan who are to go in squads of ten. Presumably other states are being called upon to send their quota so that the total will be considerable. But mark you the terms of the call and think of the humiliation of some of us. They do not ask for those grown old in experience, those who consider themselves among the top-notchers; not at all. They stipulate that only the youngsters in the medical profession, men between twenty-five and thirty-five will be accepted. While the age limits of the compulsory military service bill have not been definitely decided upon, the maximum age will probably not be more than thirty-five. So far as I am able to judge, those who are running this war game seem to be playing favorites, backing the young men and politely saying to some of us that we may possibly be called on later; they will see. But they have thrown a sop to those above thirty-five so far as the Medical Officers' Reserve Corps is concerned. If you are physically and mentally qualified and your habits are good, you can be enrolled in the Reserve Corps up to the age of fifty-five. They don't promise you will be called to active duty. It is even hinted that

those called for active field duty will be forty-five or under, but they don't take away all hope for they will enroll you up to the age stated.

Thus the first question is answered. *You are needed, and needed badly if you can get in.* At least if you are fifty-five or under you can try. If you can not pass the physical examination, you will have the consolation that you have responded to the call and have demonstrated your willingness to serve. For it must not be forgotten that there will be no need of conscription so far as the medical profession is concerned. That is my opinion at the present time and I hope I shall not be obliged to change that opinion. It has been estimated that an army of two million men will necessitate a medical corps of between fifteen and twenty thousand. *Upon that basis Michigan will have to furnish approximately six hundred physicians. This will mean more than one-quarter of the membership of this Society* if we exclude the physicians already enrolled in the Red Cross Sections and other medical divisions of the Army and Navy. I feel sure that the reason so few relatively have sent in applications for the Reserve Corps is that they have not been certain that they were really needed. One of the principal purposes of this meeting is to disabuse your minds of that fact. I for one have no fear but what the medical profession of Michigan will respond to the call. Her past history demonstrates that there have been few slackers in our midst. Let us show the people of this State and the country at large the stuff that is in us. Do not let us hold back and try to delude ourselves by saying that we will send in an application for the Reserve Corps later on when perhaps we will be needed. *The War Department wants you now so that it can definitely know what it can depend on.* Let us hope it will not be necessary to adopt the English system in this country where it is decided whether a medical man shall or shall not join the colors through a tribunal. We want to see no compulsion in our profession. We would rather see so many Michigan physicians making application for the Reserve Corps that a tribunal would be necessary to compel some of them to remain at home in the interests of the civil population.

The old Medical Reserve Corps of the Army goes out of existence June 2 next, its place being taken by the Medical Officers' Reserve Corps which differs from the old organization in that no choice is given officers of this Corps

as to whether they will or will not respond to a call to duty in case of war. In other words it is a true reserve in which the medical officers are commissioned for five years and through the acceptance of their commissions and their oaths of allegiance, bind themselves to respond to the call of active duty during that period. This answers many questions about the length of service for Medical Reserve officers. Practically it means enrollment for the duration of the war, since after the cessation of hostilities the Medical Reserve Officer would be retired to the inactive list, still subject to call until the expiration of his term of service.

When on active duty the Medical Reserve officer receives the pay and emoluments of officers in the regular army service. For example, the large majority of civilian physicians will be enrolled in the Reserve Corps as first lieutenants. They will receive a salary of \$2,000 a year with quarters and certain other allowances, such as traveling expenses, etc. They must provide their uniforms and pay their share of the expenses of the mess, but, since food is obtained at wholesale prices, the estimated expenses will probably not be more than seventy-five cents or a dollar a day. I have gone somewhat into detail regarding these matters since it is of vital importance for the applicant to know how much he can depend upon for the support of his family in case he goes on active duty. And that naturally leads to the consideration of another matter equally important, the duty of the physicians remaining in civil life toward the Medical Officer on active duty. Although there will not be many chances to spend money at the front it does not require much calculation to see that the Medical Reserve Officer will not grow rich out of his salary and that it will be practically impossible for him to provide for his family out of his salary as well as if he were in active professional work at home. While a man's first duty, no doubt, is to his country in her time of need, it is too much to expect that he will see those dependent upon him suffer. And that is where each one of us at this meeting can help. It will devolve upon us on this occasion to evolve some practical scheme whereby the practice of the doctor at the front can be taken care of by his colleagues, so that his family will have a certain income over and above what he is able to save out of his salary.

I have purposely used the words "taken care of" which have never failed to call forth a smile. "Surely," someone remarks, "there will

be no trouble about that; the absent one's practice will be so thoroughly taken care of that he will not recognize it when he returns." But is not that cynical remark called forth more by what used to exist in the medical profession than is the case today? Those of us who have been privileged to observe the trend of medical affairs in Michigan during the past twenty-five years can testify to the great improvement in the relations of medical men with each other. Twenty-five years ago it would have been utterly impossible to have formed auxiliary medical defense committees in the different counties in the State. Not so long ago it was thought absolutely essential for each physician to form himself into a committee of one for defensive purposes. He felt sure that, he himself being chairman, secretary and the remainder of the committee, there would be perfect harmony which in itself would be advantageous in his defensive work. I have talked over this question with scores of the members of the Society and the majority think that it is quite possible to work out a practical scheme for the accomplishment of the purpose we have in mind. To the doubters I have put this question. "Would you not be willing to attend the patients of a colleague at the front and turn over a certain proportion of the professional fees to a committee of doctors of your county for the benefit of your absent colleague's family?" The answer has invariably been, "Yes." In some instances, however, they seemed to doubt whether the other fellow would do this. At any rate, it would be an interesting experiment and in my opinion should be tried.

It would seem as if universal service is most likely to be worked out in this country, not only universal military service, but service of all kinds, and that after all is what we all of us want. We have heard how much depends upon the efforts of the farmer if we are to feed the allies as well as ourselves. The same effort will be required of each and every one of us whether we be at the front or at home. Gone are the days when it was no crime to take one's ease. Pray God those days may come again but, until the business in hand is settled, there can be no leisure for any of us. We have much to do and it must be done quickly and efficiently. Let each man search his own soul and then decide what part he shall take in the struggle. We can not tell how long this war will last but each one of us can soon ascertain what part in the conflict he will enlist for. Decide now or you may lose your chance and

your place be filled by a stronger and better man. Above everything else, let us show what the medical profession of Michigan can and will do.

Chairman: We have with us a representative of the Army, and I have pleasure in introducing to you Lieut. Colonel Angus McLean, head of the Harper Hospital Base.

DR. McLEAN: There has been considerable said here in regard to patriotism—the medical profession in Michigan does not need to be reminded of their obligation and duty—they have responded to the calls made upon them in perfect keeping with the character of their self-sacrificing service, and there is no state in the Union that has sent in more applications for this work than Michigan.

There has been something said about the Red Cross. These people who go into these base hospitals, called Red Cross units, are not lagging behind, but are right in the forefront. When you are in this, you must know that it is a part of the United States, and you are under orders of the Surgeon General and under the officers, and can be sent anywhere at any time. You are subject to as much danger as anybody else.

There has been an idea prevalent that a physician is more immune from danger because of his work—that they are located in the safety zone—but the facts are, according to the reports given, that there were more physicians killed and wounded than any other set of men in the army.

The first record we have of any medical service was in the old Roman period when they had men, non-commissioned officers who had not only to fight, but to treat their fellow men. At that time they were called *duparia*—they fought double—if they did well, they were put on double rations.

The first we know of in history about first aid in war was in the Grecian wars. These people were paid for their services—every person that was wounded, and they succeeded in saving, they were paid so much a piece, and from that emanated the First Aid Corps.

Now when you wish to get into the Medical section of the Reserve Corps, your name will be sent to Washington, you must be examined physically and mentally before a competent Board—there are two in this State, one at Detroit and one at Marquette. To facilitate matters, and save trouble and expense, we brought the Board out with us, and this Board will examine any who desire to take the tests.

There has been something said about age—I think there are more volunteers above than young fellows below. And it will not be very long before these men along about 35 will be called upon—maybe not across the water, but for some home duty, and there will be a place for most everyone.

The physical examination and mental examination are not severe—the majority pass—they waive color blindness—they are not strict on the matter of sight as in the signal corps; waive also on slight hernia, etc. There is room for everybody and everyone who enters I feel sure will be treated well. But don't go into the thing thinking you will have a play-spell—there is work, hard work, exposure,

danger. The Government expects that every man will do just what he is told to do and go just where he is told to go.

I think that the most of these units that are now forming will go abroad. Some say, "When the fellows come over here I will sacrifice everything, even to the giving of the last drop of blood." But a good many think that it will pay better to save the first drop of blood in France.

The records show that the applications from Michigan are as great as from any other state, and there is no less enthusiasm in the medical profession than in any other profession.

Chairman: The examination is appointed to be held at Dr. Haughey's office.

We have with us a gentleman who does not have to say "Go"—but he says "Come." I have pleasure in introducing Lieut. Col. Burt R. Shurley.

COL. SHURLEY: Mr. Chairman, Members of the Medical Profession: I stand here before you by virtue of a very great privilege, and that is, of being born on the fourth of July. I have never been quite able to get over it. And I want to say that I am sure that every member of the medical profession here will, if he does not at the present time, feel as though he were born on the fourth of July.

It has been a great privilege to represent the Red Cross Society. The American Red Cross Society is but a part of the great organization that was founded at Geneva at the Convention in 1863, and in America it is divided into three departments—the division of war relief, the division of civilian relief and then there are branches or chapters in all the large cities, ready to act on a moment's notice.

And now that the Red Cross flag has been fired upon for the first time in the history of nations; our hospital ships have been sunk; our trained nurses have been slaughtered; and the medical men that we have sent under that flag have been killed, something that has never before been done in the history of Christian nations, it seems to me that this call to enlist under the Red Cross flag is as great as the call to our fathers when Ft. Sumpter was fired upon in years gone by. And now as we rally around the Red Cross flag, with its base hospitals, with its ambulance companies, with its sanitary squads who serve that flag with Old Glory, I am sure that again the country will be proud of its medical profession as it has been in the past.

And so the organization of the base hospitals has been added as a prophylactic measure—a very necessary measure work of the army. If you could have been with me in the South at the time of the Spanish American war, and seen the flower of this land—3,000 men in a camp of 50,000 soldiers stricken with typhoid fever because of the lack of proper sanitary methods, because we did not exercise that scientific knowledge which we have today, you would appreciate the value of the service that is rendered by the Red Cross, not only to save those who are wounded on the battlefields, but also to prevent the awful slaughter from sickness and disease which has devastated our ranks of soldiers.

So I could say, organize your sanitary units under the Red Cross and form your Ambulance

Corps to join the base hospitals—each of these requiring in nurses, doctors and other helpers 150, and do all the work they are called upon to do at a distance of twenty miles back of the line.

This work in Europe has been marvelously successful, and the Red Cross work fills in the gap as nothing else has ever done. Our regimental surgeons are well supplied and eminently qualified; our civic and military hospitals are well equipped, but the gap in between that has existed in years past is now filled by the Red Cross. So I say that we will never regret entering enthusiastically into this Red Cross work, give it our support, rally around this flag, for it has a place in this great economy of alleviating human suffering that can not be estimated. (Applause).

Chairman: Now we come the most serious part—how shall those who are left behind be cared for. I will call upon Dr. J. W. Kay, of Lapeer, who will give his report:

THE CONSERVATION OF THE PRACTICES AND INTERESTS
OF THE MEMBERS OF THE MICHIGAN STATE MEDICAL SOCIETY WHO ENTER THE MEDICAL
SERVICES OF THE UNITED STATES
ARMY AND NAVY.

1. The Michigan State Medical Society tenders to and assures every physician who is a member of this organization that upon his entrance into the service of the United States, each member will have the collective and individual support and assistance of this organization and its members in the protection of his practice and interests during the period of his Army and Navy service. That upon his return to his respective communities the Michigan State Medical Society will, through its officers, Council and Members, exercise and extend to him its like influence in causing and aiding him to reconstruct his practice.

2. That the Michigan State Medical Society through its officers and Council shall cause to be appointed by its component County Societies, a Committee that is to be known as the County Medical Society Patriotic Committee. That these committees shall be charged with the responsibility of familiarizing themselves with the comforts and circumstances of each enlisted member's family and dependents. That from time to time, as needs may be, these Committees shall assure themselves that the family and dependents of the member in service are existing in comfortable circumstances and are not undergoing any hardships. Further, that this Committee shall file with the Secretary of the State Society a list of the families and dependents of members who have enlisted and are in active service and that they shall report monthly to the State Secretary the condition of each member's family and dependents.

3. That the Council's Finance Committee is hereby authorized to spread such assessments as may be necessary to create and maintain an Emergency Fund. That in the spreading of such assessments members who are in actual service shall be exempted. The Financial Committee is hereby authorized to disburse this fund as required, upon the recommendation of County Patriotic Committees and in its judgment, to protect the interests,

wants or actual requirements of the families or dependents of our members who are in actual service in the Army and Navy.

4. That the Council is authorized to draw upon the funds of the Society for disbursement by the Council's Finance Committee for the purpose of rendering prompt and immediate relief to any member or his dependents should they be in want or require special relief measures.

5. The Council is authorized to supervise and direct methods of relief and the means for accomplishing the protection of enlisted members' families and interests.

Chairman: If you desire the report as it is, adopt it; if you desire a further consideration of it, indicate it.

Dr. Burkhart: I move that the report be adopted as read. Seconded, and carried unanimously.

Chairman: Are there any resolutions to be presented before we close?

DR. GARBER: I want to present a resolution. I think one of the greatest hardships to come to the fellow who is anxious and willing to serve, is to be told he is beyond the age limit. I do not think that any physician gets beyond the age when he is ready to strike a blow for his country. The medical journals and Preparedness Board have been asking our young men who are now in school or are contemplating a course of training to remain—they are in the hotbeds of enthusiasm—and so I desire to present the following resolution:

"Inasmuch as the *Journal of the American Medical Association* through its editorial columns and the Board of National Defense through its Medical section is urging all medical and premedical students to continue their studies, and since to do so will be to subject a large class of enthusiastic and patriotic young men to the possible opprobrium of "coward" and "slacker," Therefore be it Resolved, That the Michigan State Medical Society in special session assembled does hereby urge upon 'The General Medical Board of National Defense' that a way be devised whereby all medical students or those about to enter medicine shall be recognized as being in their country's service and that some insignia so designating them shall be given them. Be it further resolved that the Secretary of the Society be instructed to inform the Chairman of the Board, Dr. Franklin H. Martin, of the action of this Society at once."

I think it is very desirable to have this passed. They all want to go, and they have been told repeatedly that it is their duty to stay. On the other hand, from this insignia that has been ordered by the government, it should be a great help. I hope this resolution passes.

DR. KING: As I understand this resolution, those that are going to be students, as well as those who are students—this will give them a chance to become a slacker—therefore I think that part should be stricken out.

DR. GARBER: There are a lot of young men who have made up all their preliminary work, all ready to enter upon their course of special training—these are the men that we want in reservation. So I think that part of the resolution is all right.

Chairman: We have with us Dr. Alexander R. Craig, of Chicago, Secretary of the American Medical Association.

DR. CRAIG: It is a pleasure always to meet with you for there is always something that makes me feel as though things were being done. You Michigan men have a happy faculty of putting your finger on the right thing and doing it.

And now I plead guilty to something—I want these hundreds of men who have made formal applications for commissions in the various corps, and also every member of the Michigan State Medical Society, as well as every member of every other State Medical Association, that they will pledge themselves to give their support to the federal government anywhere the federal government needs them.

In making this request I know I have transcended

the authority of the Medical Association, but when the House of Delegates meet, I am sure they will endorse the action I have taken in your name of all the State Medical Associations.

And now, if I may be pardoned for suggesting a way out of the difficulty that is thought to be involved in the resolution just passed, that every man who is given his insignia shall by his accepting it, pledge himself, and make himself in honor bound to make application for a place in the Reserve Corps—it may not be in the Medical Corps—but wherever it may be, and then if the Government needs them they will be willing to join the Medical Corps of the Army or Navy to serve their country whenever and wherever their country needs them.

A vote on the question of the resolution resulted in its being carried unanimously.

There being no further business, the Society adjourned, joining with Dr. Ostrander in singing America.

A. P. BIDDLE, President.

F. C. WARNSHUIS, Secretary.

GENERAL MEDICAL BOARD OF THE COUNCIL OF NATIONAL DEFENSE.

*Dr. Franklin Martin, Member of Advisory Commission, Council of National Defense, Chairman.

*Dr. F. F. Simpson, Chief of Medical Section, Council of National Defense, Vice-Chairman.

*William F. Snow, Assistant Chief of Medical Section, Council of National Defense, Secretary.

*Surgeon General William C. Gorgas, U. S. Army.

*Surgeon General William C. Braisted, U. S. Navy.

*Surgeon General Rupert Blue, U. S. Public Health Service, President American Medical Association.

*Col. Jefferson R. Kean, Director General of Military Relief, American Red Cross.

*Dr. William J. Mayo, Rochester, Minnesota.

*Dr. Victor C. Vaughan, Dean of University of Michigan, Ann Arbor, Michigan.

*Dr. William H. Welch, Professor of Pathology, Johns Hopkins University, Baltimore.

Dr. Frederic A. Besley, Professor of Surgery, Northwestern University, Chicago.

Dr. Herman M. Biggs, State Commissioner of Health, New York City.

Dr. George Brewer, Professor of Surgery, University of New York, New York City.

Dr. John Young Brown, Professor of Surgery, University of St. Louis, St. Louis, Mo.

Dr. George W. Crile, Professor of Surgery, Western Reserve University, Cleveland.

Dr. Edward P. Davis, Professor of Obstetrics, Jefferson Medical College, Philadelphia.

Dr. John M. T. Finney, Professor of Clinical Surgery, Johns Hopkins University, Baltimore.

Dr. Simon Flexner, Director, Rockefeller Institute, New York City.

Dr. Joseph M. Flint, Professor of Surgery, Yale University, New Haven, Conn.

Dr. Thomas W. Huntington, Professor of Surgery, University of California, San Francisco.

Dr. Theodore Janeway, Professor of Medicine, Johns Hopkins University, Baltimore.

Dr. Edward C. Kirk, Dean of Dental Department, University of Pennsylvania, Philadelphia.

Dr. Charles E. Kahlke, Professor of Surgery, Hahnemann Medical College, Chicago.

Dr. W. H. G. Logan, President-elect, National Dental Association, Chicago.

Dr. Stuart McGuire, Professor of Surgery, University of Virginia, Richmond, Va.

Dr. Edward Martin, Professor of Surgery, University of Pennsylvania, Philadelphia.

Dr. Charles H. Mayo, President-elect, American Medical Association, Rochester, Minn.

Dr. Charles H. Peck, Professor of Surgery, Columbia University, New York City.

Mr. Earl Phelps, Sanitary Engineer, Washington, D. C.

Dr. Hubert A. Royster, Secretary of Southern Surgical Association, Raleigh, N. C.

Dr. Sterling Ruffin, Washington, D. C.

Dr. George H. Simmons, Editor, Journal of American Medical Association, Chicago.

Dr. Winford Smith, Superintendent, Johns Hopkins Hospital, Baltimore.

Dr. Richard P. Strong, Professor of Tropical Medicine, Harvard University, Boston.

Dr. William B. Van Lennep, Professor of Surgery, Hahnemann Medical College, Philadelphia.

Dr. George Walker, Johns Hopkins University, Baltimore.

Dr. W. C. Woodward, Health Officer of the District of Columbia, Washington, D. C.

*Members of the Executive Committee of the General Medical Board.

*Original Articles***CIRCUMSCRIBED CYSTIC MENINGITIS
—REPORT OF THREE CASES.**

H. N. TORREY, M.D.

AND

L. N. FLEMING, M.D.

DETROIT, MICH.

Circumscribed cystic meningitis is the designation that has been given to an affection of the coverings of the cord and brain, evidently occurring quite frequently, and is a lesion concerning which there is not, as yet, an overabundance of literature. Not a few other names have been applied to the lesion, instances of which are meningitis serosa circumscripta, hydrocephalus meningeus, arachnoid cysts and arachnoiditis adhesiva circumscripta. That the names are more or less arbitrarily chosen is evidenced by their multiplicity and a perusal of a description of the lesion.

The lesion, as has been described by various writers, and there has been a remarkable unanimity of the picturization as well as in the cases with which this paper is concerned, consists of a collection of fluid within the dura, surrounded by a quite definite delimiting membrane usually of extreme thinness. The limiting membrane undoubtedly is from the arachnoid or pia-arachnoid. The lesions occur in any region and they give rise to symptoms practically identical with tumors of the cord.

The first instance of this condition to be described was that of Spiller, Musser and Martin (1) in 1903. In an admirable paper they gave a most vivid picture of a cystic condition occurring in the arachnoid which was diagnosed as tumor of the cord, and upon exposure and evacuation resulted in an almost complete cure which was of long duration.

Subsequent to this publication there appeared several articles dealing with the same subject and bringing to light many cases of circumscribed meningitis. Krause (2) was able to collect eleven cases from his own records, Horsley (3) reported twenty-one cases as such, though the correctness of the classification of some cases in his series has been questioned. Smaller numbers have been described by Oppenheim (4), Bruns (5), de Montet (6), Mendel and Adler (7), Bliss (8), Weisenburg and Müller (9), Munro (10), Mills (11), Skoog (12) and Hanes and Willis (13). Schlesinger (14) described the postmortem findings in a case dying from an intercurrent complication,

of what he termed meningues, which evidently was an example of the disease here described or very closely related to it.

However, many instances of the rapidly growing list of cases have not passed unchallenged. Skoog (15) in a paper in 1915, reviews the literature and discards all but four cases as instances of cystic meningitis, and adds two that he himself reports in his paper. Granting the case of Hanes and Willis to be one true to type, there would have been but seven cases in the literature preceding our paper. He does not give a definition or a definite pathological picture, and it naturally follows that the fair minded reader cannot wholly accept his sweeping exclusion of all but four examples previous to his own addition. Although we feel that Skoog has been entirely too radical in ruling out all but a few cases, nevertheless there are some that have been described as cystic meningitis that do not appear to conform to our conception of the lesion. Before discussing other interesting phases of this lesion, our cases will be presented as briefly as is feasible with clearness.

CASE REPORTS.

Mrs. A. S. aet. 46, was admitted to the medical service of Harper Hospital, complaining of weakness of both legs and inability to walk. The patient was of Hungarian extraction. The family history was not obtained and her childhood history was of no importance. In 1911 while still living in Hungary, she developed bladder disturbances for which she was treated with irrigations. One year later her right kidney was removed in Budapest with apparent cure of the condition for which she had suffered.

In February, 1914, she fell upon the ice, striking her back and right shoulder, with no apparent local injury. However, she developed pain in the region of the bladder which came on at intervals. During the past summer she developed severe pain in her right arm, right neck and back, being confined to bed for seven weeks with this pain.

The present illness began three weeks before admission with a sudden onset of weakness in both legs and trouble in walking. The condition progressed rapidly and for the past few days her legs have been paralyzed. During this time she has been troubled with nocturia and frequency of micturition, and occasionally edema of both ankles. The general physical examination revealed some impairment of both apices. There was nothing else of importance. The neuro muscular examination showed marked weakness of both legs, spasticity and a left facial paralysis. She was unable to stand on her feet. The knee jerks were exaggerated. Babinski was positive in both legs. There were no sphincter disturbances. The pupils reacted normally to light and accommodation; fundi were normal. Tactile and pain sensations were impaired in all regions supplied by the segments of the cord below

the tenth dorsal vertebrae. Formication was also marked over these regions. In the regions supplied by the tenth to fifth segments, there was hyperesthesia. The urine was negative. The Wassermann reaction was negative.

While in the hospital, the patient developed an abscess of the left anterior chest wall over the fifth to sixth chondro costal articulations. This was incised and drained. It was tuberculous.

While the possibility of the cord tumor had been in the foreground as a cause of the spinal trouble, doubt was engendered by this complication, and accordingly a thorough search of the plates of the spine was done. However, the vertebrae and ribs were apparently normal and no signs of a tuberculous focus were made out.

Diagnosis.—The final diagnosis was tumor of the cord and as the symptoms were progressing, a laminectomy was decided upon.

Operation July 10, 1915.—Ether. The dura was exposed at the level of the eighth to eleventh dorsal vertebrae. The dura did not pulsate. A very definite elevation, evidently the outline of a mass beneath, making a dura very tense. Upon incision of the dura, a bag of fluid presented, its base being attached to the arachnoid. The cyst measured 5 cm. in length by 1.5 cm. in width, and lay over the ninth and tenth dorsal segments. The free surface of the sac wall was very thin, while at its base in the arachnoid it was considerably thickened. On opening the sac, clear fluid escaped under pressure and the walls collapsed. There was considerable matting of the pia-arachnoid about the nerve roots coming off from the involved segments. The walls of the sac were removed almost completely. The pial veins below the growth were markedly congested. The wound was closed in layers, two gutta percha drains were laid, one in each angle of the wound down to the deep muscles. The patient had no untoward incidents, either from the anesthetic or the operation. The healing was per primam.

Improvement was slow but noticeable, for on July 13, 1915, movement of the legs was much more free and her general condition was excellent, although she complained of pains in her legs.

In November, 1915, the sinus under the breast was excised and the sixth costal cartilage curetted. Aside from this, the improvement has been steady since the laminectomy, and when seen Feb. 26, 1917, was in good health. She walked normally, had no disturbances of sensation nor no root pains. The reflexes were normal. She maintained she was as well as she appeared.

CASE II. Mr. F. J. S. white, aet. 26, was admitted to Harper Hospital May 26, 1915. His complaint was "epileptic fits." The family history is not of interest. He had none of the childhood diseases. Fifteen years previous to this date he had been struck on the head(?). He was a victim of a gasoline stove explosion twelve years previous in which he was burned on the neck and right arm, and was disabled for six weeks.

The present illness began fifteen years before when he was attending St. Francis Orphan Asylum where he was punished by being struck on the palm of the hand with a switch. Following this he had an epileptic attack. Since then he has been subject

to attacks of from two to three each month until within the last four years, during which time he has had several each month. He thinks that his memory is failing. The attacks are preceded by dizziness, then the right half of his face becomes stiff, then the right arm, then the right leg. He bites the tongue. There was no incontinence of urine or feces during the attack. He lost consciousness during the attack.

Physical examination disclosed nothing of importance except the neuro-muscular condition. He walked with a limp. Right arm and leg were weak and much smaller than the left. There was a very marked tremor involving the right half of the body. The tremor was continuous. There was no evidence of bony deformity of the skull, and a Roentgen examination was impossible owing to the tremor. Wassermann was negative.

Due chiefly to the patient's insistence, an exploratory craniotomy was decided upon with the hope that a removable irritative lesion might be found. An osteoplastic flap was turned down in the left parietal region and the dura exposed over the motor region. There was circular bulging of the dura 4 cm. in diameter, lying over the motor area. Upon opening the dura, the bulging was seen to be due to a thin walled collection of clear fluid surrounded by a thin membrane. Upon decision several drachms of clear fluid escaped under considerable pressure. The base of the cyst was in the pia arachnoid. The cortex surrounding this area showed a flattening of the convolutions and ischaemia. A portion of the dural wall of the sac was excised and the dura partially closed. Recovery from the anesthetic and operation was uneventful.

The tremor disappeared for about ten days, then returned but was not so marked and at the present time, twenty-two months after the operation, it is much less in severity. There has not been an epileptic much stronger and he now works every day.

CASE III. Mrs. T. F. aet. 36, was admitted to Harper Hospital July 11, 1916, complaining of "paralysis of the legs." The family history was not significant and aside from childhood diseases, including diphtheria, she had enjoyed perfect health until the beginning of the present illness. The trouble began ten years ago when she noticed that her legs were growing weak. She was unable to stand up as long as usual and became extremely tired. The weakness gradually progressed and in a year or two she was forced to use a cane to walk. Five years ago she became so weak that it was only with the aid of two sticks that she could get about at all. For the past year she has been bedridden, movement of her legs being extremely slight. She has been markedly constipated and is forced to strain considerably in micturition. At no time had there been pain in her legs but she had noticed that for some time she had much less keen sensation of pain of the skin and had a marked loss of muscle sensibility. The physical examination elicited nothing of importance except in the neuro-muscular domain.

Neurological Examination.—The patient was lying in bed and was unable to change position without assistance. The paralysis was spastic. There was no apparent wasting of the legs. There was no tremor. The pupils were normal and pupillary re-

flexes were normal. Fundi were normal. There was a slow lateral nystagmus. Reflexes: There was a double positive Babinsky. The knee jerk was greatly exaggerated in both legs. Plantar stimulation caused clonus of each leg. Sensation: Pain, temperature and touch sensations were absent or greatly diminished anteriorly and posteriorly below the level of the eleventh dorsal spine. There was marked constipation and great difficulty in emptying the bladder. A diagnosis of tumor of the cord was registered and a laminectomy decided upon.

Operation July 18, 1916.—Ether. The spines of the eight to the twelfth dorsal vertebrae were removed and the dura exposed. The dura bulged into the wound and did not pulsate. The dura was incised and there was disclosed a fusiform cystic mass which enveloped the cord for a distance of 6 cm. The mass consisted of a thin membrane, evidently from the pia arachnoid and was filled with clear fluid under tension. On puncture several ccm. of clear yellowish fluid escaped. There was no spinal fluid observed except in the sac. The cord under the sac showed evidence of pressure and the pial veins below the sac were tortuous and large. A probe inserted above this region encountered no obstruction. The recovery from the ether and operation was without incident. She was discharged from the hospital August 4, 1916 with her condition unchanged.

One month after discharge from the hospital, a report from the family physician told of slight improvement. There had been a return to some extent of sensation. She had developed an involuntary tremor or "dancing" of the legs. On Oct. 26, 1916, the communication showed that she could move the toes freely, and although her legs would not support her, with aid she could get about and had power to put one foot before the other. In the last report of January, 1917, she could walk with the aid of a cane. Sensation had greatly improved and the general condition was excellent.

We feel that these cases conform very closely to the types of cases of circumscribed cystic meningitis that have been described. In all of these the most prominent pathological feature has been a collection of fluid in a thin membrane, compressing the cord or brain and on puncture the sac collapsed.

If one may venture an opinion as to Skoog's criteria of this lesion, it would seem from his paper that the lesion is a cyst definitely arising from the pia-arachnoid and that secondary changes in the surrounding membranes and cord were absent or of minor importance. If our inference is correct, then our cases may not fulfill all requirements necessary to place them as true examples of circumscribed meningitis.

A cyst is defined as a sharply limited and abnormal collection of fluid in any area unprovided with a channel of outflow. (15) Our cases most decidedly conform to such a definition and there is no reason to believe but that the term "meningitis" is well taken, for in

many of these cases, the cystic formation may be the result of encapsulated hemorrhage or inflammatory products.

It is true that in reading over some of the operative descriptions that the impression is given that the collection of fluid is not circumscribed nor cystic but apparently is from a cul-de-sac above or below a certain lesion or membrane, and no doubt there are many instances of rupture of an unrecognized membrane of extreme thinness. Our cases gave no evidence of cystic degeneration of tumors or being of parasitic origin.

It will be noted that in Case II of this group, the lesion occurred in the coverings of the brain. The great majority have occurred in the course of the cord covering although Krause described one instance of a cerebellar lesion which he felt convinced was of this type.

In all of our cases there was marked improvement from complete relief of the neurological signs in Case I to great improvement which continues at the present time. It is a remarkable fact that in practically every treated case on record that where operation was performed there has been no evidence of recurrence, and in most of them more or less improvement.

As to the etiology of circumscribed cystic meningitis, nothing but conjecture can be advanced. Cysticerci and echinococcus are of fairly frequent occurrence in the cord and brain and their coverings but, as a rule, give evidence of the parasites elsewhere and the parasitic cysts generally are multiple. Sir Victor Horsley believed that syphilis was the underlying agent in many of his cases and the gonococcus in others. Tuberculosis has been advanced as the cause in some instances but no very satisfactory evidence has been shown in these cases.

Injury has a great many advocates and it seems to the writers that there is a great deal to be said in its favor as a cause. It seems most reasonable that the inflammatory adhesions with the subsequent softening of liquification of the products of inflammation could give rise to the condition described.

The symptoms of this lesion are practically those of extra medullary tumor. Horsley advanced some differential points but these have been disputed. Neuralgic pains have been absent or not marked in our two cases of affection of the cord membranes. The spinal fluid withdrawn by puncture may give some significant data (Hanes and Willis) (17). These writers found in their case a marked protein excess,

xanthochromia with a low cell count, concerning which syndrome Hanes (18) has published an article and we quote his conclusions.

1. Compression of the spinal cord and its meninges from whatsoever cause leads to the formation of a cul-de-sac, more or less complete, distal to the site of compression. This leads to characteristic changes in the spinal fluid.

2. The earliest characteristic change has been described by Nonne as an increase of proteid without cell increase.

3. As the condition of cord compression persists, the fluid gradually becomes yellow in color, the procontent increases enormously, and the fluid, when removed, coagulates spontaneously (Froin's syndrome). Pletocytosis may or may not be present, depending upon whether or not the meninges are inflamed by the pathological process causing the compression.

4. Xanthochromia of the spinal fluid must be distinguished from staining of the fluid by hemoglobin derivatives.

5. The spinal fluid syndrome of Nonne-Froin is very helpful and reliable in the diagnosis of spinal cord lesions. When present it always indicates a compressive lesion of the spinal cord.

It is regretted that the spinal fluids were not studied in these cases. Suffice to say, that in all probability the lesion cannot be differentiated pre-operative from extra medullary tumor of the cord.

The prognosis would seem fairly well established, namely more or less rapid progression to a fatal end. This view would naturally bring up the question again of the character of the cyst. If lined by endothelium, it would be self explanatory of the way in which it carried out the destruction, that is to say by reason of growth from secretion. However, if of inflammatory origin and with a limiting membrane of organized adhesions, there would not appear any reason for an increase in size and one would look elsewhere for an explanation of the terrific damage done by a moderate sized cyst, namely inflammatory changes induced by it acting as a foreign body, and causing edema and thickening of the surrounding structures and an increase of pressure.

The treatment is most clearly indicated by the brilliant results obtained with these cases in the past, namely laminectomy and evacuation. It occurs to the writers to add their emphasis to the opinions of many others who advocate early exploratory operation for pressure symptoms of the cord. Horsley (19) had made it a rule to operate on such cases as soon as anti-luetic treatment had been demonstrated to be of no value. This would seem to be a most safe way to handle this disease, for time

alone, aside from increase in pressure, may bring about irreparable damage to the cord tracts. Horsley advocates evacuation and irrigation of the canal with a weak solution of corrosive sublimate.

Laminectomy in experienced hands is far from a stupendous procedure and offers the only opportunity for alleviation and very often complete cure.

REFERENCES.

1. *Univ. of Penn. Med. Bull.*, 1903, XVI, 27.
2. *Surgery of the Brain*, III, 1055 (Rebman, New York).
3. *Brit. Med. Jour.*, 1909, 1, 513.
4. *Beitrage zur Diagnostik und Therapie der Geschwulste im Bereich des Centralen Nervensystems*, Berlin, 1907.
5. *Berl. Klin. Wchnschr.*, 1908, p. 1753.
6. *Cor. Bl. F., schwiez Aerzte*, 1908, p. 698.
7. *Berl. Klin. Wchnschr.*, 1908, XIV, 1596.
8. *Jour. Am. Med. Assn.*, 1909, LIII, 885.
9. *Am. Jour. Med. Sc.*, 1910, CXL, 719, No. 5.
10. *Surg., Gynec. and Obst.*, 1910, X, 235.
11. *Jour. Nerv. and Ment. Dis.*, 1910, XXXVII, 529.
12. *Jour. Am. Med. Assn.*, 1915, LXV, 394.
13. *Am. Jour. Med. Sc.*, 1916, CLII, 859, No. 6.
14. *Beitrage zur Kenntnis der Rückenmarks und Wirbeltumoren* Jeva, 1898, p. 46.
15. *Loc. cit.*
16. Adami: *Textbook of Pathology*, p.
17. *Loc. cit.*
18. *Amer. Jour. Med. Sc.*, CLII, 66.
19. *Loc. cit.*

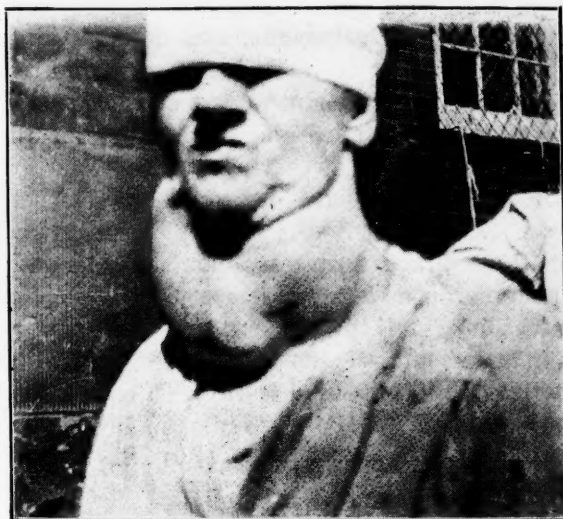
THE INCIDENCE OF GOITRE AMONG FOUR HUNDRED AND TWENTY- FIVE WOMEN AT THE NEW- BERRY (MICH) STATE HOSPITAL.

MINTA PROCTOR KEMP, M.D.
NEWBERRY, MICH.

Goitre is comparatively a rare disease in the United States, but it is quite prevalent in a few districts, one of which is Northern Michigan. Dock (1) states that goitre is found in all parts of Michigan, but particularly in the northern section.

The geographical distribution of goitre is very interesting. The occurrence of goitre is known to antedate the Christian era, and that the disease abounded among the Alps was known to the ancients. The disease was also described by the Romans. It is associated in a striking manner with mountainous countries. It has been reported (Hirsch 2) that a great zone of goitre begins in Mexico and extends with increasing intensity through Central America and South America as far as

Chili. The distribution of goitre in the United States is of particular interest to us. There were parts of New England, New York, Alabama, and Virginia in which goitre prevailed a hundred or more years ago, but where it no longer exists. For instance, it is amazing to read (Barton 3) that in 1798 in Pittsburg, out of 1,500 inhabitants, no less than 150 had



One of the cases of extreme enlargement of the thyroid gland.

the disease. However, the number of cases gradually declined and no new cases occurred after 1806.

It is a fortunate circumstance that has caused the decline of goitre in certain regions in the United States, for it is stated that in Europe goitre has about the same prevalence as it had one hundred years ago.

It has been observed in Europe that drinking water from certain springs in goitre regions will produce goitre. Those who drank from the springs developed goitre, and those who did not, remained free from it. There are said to be wells to which young men wishing to avoid enlistment resort. In a few weeks goitres develop which are large enough to exempt them from military service.

At the Kingston Insane Asylum, in the Province of Ontario, Canada, Osler (5) mentions the extraordinary prevalence of goitre where in 1893 there were 228 cases of goitre among 600 patients. It was found that the patients developed goitre when the St. Lawrence River water was substituted for well water. The reverse has been true of some Michigan towns—that the disease has decreased when lake water was used instead of well water. (Dock). Recent observation in goitre

in Michigan were made by Dock, who found that it prevailed in all sections, particularly in the northern section. The Indians who preceded the civilized inhabitants along the southern shore of Lake Superior used melted snow for drinking water during the winter months, and the goitre which was common among them was attributed to drinking "snow-water." However, all recent investigation tends to show that the infectious agent is conveyed through the drinking water; and behind the water the cause is said to lie in the geologic formation.

M. Wilms (6), who carried on some experiments in Europe, gave some rats water from a goitre spring, and found that the disease was produced by the water either filtered through a Berkfeld filter, or unfiltered. One of the most interesting facts that has been brought out is in regard to the dialysis of water. Gouget (7) dialyzed water from a goitre spring and found that the substance which remained on the dialyzer produced goitre.

The Newberry State Hospital is situated in the Northern Peninsula of Michigan, where goitre is prevalent. The patients examined for



this report were all resident at the Newberry State Hospital at the time, but came from various parts of the Upper Peninsula. We may, therefore, regard all the cases as the endemic type. In Northern Michigan the towns are very progressive and practically all the settlements of a few hundred people have a town water-works system. Generalized obser-

vations are not very enlightening, as here the entire population drinks water from the same source and some are afflicted with goitre, while others are not.¹

The water supply at the Newberry State Hospital is from three wells, the deepest of which is 457 feet. The pipes go down through about one hundred feet of sand, then two hundred twenty feet of gravel and boulders, to a lime rock ledge. The lime rock has many natural cervices in which the water is found. The temperature of the water as it comes up from the wells is 47 degrees or 48 degrees F. This is unusually low for water from this depth and experts who have examined the wells concluded that the water seeps downward from three large marshes, each of which is only a few miles distant from the hospital, and is collected in the fissures of the lime rock ledge.

Women are supposed to have goitre much more commonly than men.² In this locality, however, men are very frequently afflicted with it. In our neighborhood there have been a few huge thyroids observed among men, and numerous ones of moderate enlargement. The lower animals in this region contract goitre occasionally. It is comparatively common among dogs and is occasionally found in horses and cows.³

In considering goitre among the women patients at the Newberry State Hospital, observations were made from two standpoints:

1. Thyroids of the 425 women here at present were examined by palpation and measurement.

2. Condition of the thyroid gland of new patients admitted was noted for a period of six years.

PART I.

THE EXAMINATION OF ALL WOMEN PATIENTS FOR THYROID DISEASE.

The facts in regard to the 425 women patients here at present are as follows:

Four hundred and twenty-five cases were examined for enlargement of the thyroid gland. The gland was found enlarged in 119 cases or more than 25 per cent. There was no enlarge-

ment in 306. The pulse was counted in all cases and eyes observed for any prominence and there was no instance of exophthalmic goitre in the series. Duration of the disease was very long in some of the cases, as several of the patients were admitted in 1896 with marked goitre at the time of admission. Some were admitted in every year since then; so, of the 119 patients at the Newberry State Hospital who have goitre, forty-five had it when they came. In forty-eight cases no observation was made about it when they were admitted. (Only in the last eight years, has the physical examination included the examination of the thyroid gland.) Twenty-five women who are still living here have developed goitre here from 1896 to 1917. As the population is that of the average hospital, and so constantly changing on account of recoveries or fatal terminations, it is probable goitre developed in women who have been discharged during the twenty years from 1896 to 1917. Of course, it is impossible to include these cases in this report.

Tabulated, the facts are as follows:

Thyroid normal on admission ..	306
Thyroid enlarged on admission..	45
Developed since admission	25
Cases here, antedating six year period	49

425

It is noteworthy that several cases which were quite pronounced at the time of admission have improved without treatment and the glands are now about normal. The ages of the patients show the greater number of cases between 30 and 40 years. The ages were as follows:

Ages of patients with goitre:

15-20	1
21-30	15
31-40	37
41-50	28
51-60	26
61-70	11
71-75	1

Total119

In regard to previous residence forty-eight of the 119 cases came from two counties where goitre seems to be unusually common: Houghton and Marquette counties. A very large proportion of the patients at this hospital are foreign born, therefore the following table may be of interest.

1. Of one thriving little city it is said, "nearly everyone has goitre," and the physicians there advise boiling the drinking water. Water heated to 80° C. is said to be freed from the infectious agents of this disease.

2. Of forty-five women nurses employed here, twenty-three, (or 50 per cent.) have noticeable enlargement of the thyroid.

3. Several congenital cases have been observed in the calves of the herd at this hospital. The enlargement noticed at birth decreases and is usually gone after a few months. One case has persisted for six months.

Nativity of patients with goitre:

United States	42
(Including four Indians)	
Finland	15
Sweden	15
Canada	13
Italy	7
Germany	6
Norway	5
Austria	5
Denmark	3
England, Ireland (each two) ..	4
Hungary and Belgium (each one)	2
Poland	2
<hr/>	
Total	119

or

Foreign born	77
American born	42

The patients were nearly all from the poorer and uneducated class. Many of them were unable to speak English. In general, the physical condition was very good. Sixty-eight were married, five were widows and forty-three were unmarried. Several had had illegitimate children before they came to the hospital. Nearly all of the married patients had borne children, but very few, if any, had ever taken an anesthetic.

To give some idea of the size attained by the enlarged thyroids measurements were made in all cases. The tape line was passed around the neck as near a level as possible. The largest measurement thus obtained was twenty-one inches. Several others were over nineteen inches and there were quite a number at seventeen and one-half. The other measurements were not of particular interest. The majority of the glands in this series were not markedly pendulous. All parts of the gland were not found equally affected; that is, the enlargement was not symmetrical in all cases, but was as follows:

Part of gland affected.	No. of Patients
All three lobes	61
Middle and right	17
Right only	13
Lateral lobes only	23
Middle lobe only	5
Middle and left	0
Left only	0
<hr/>	
	119

It quite frequently happened that the enlargement was first shown in the right lobe, or the middle and right lobes, the enlargement

sometimes extending later to the remainder of the gland. No reason is now offered for this order of development. Some experiments in regard to blood supply have been made (R. 8), but nothing has been noted in the work which explains the more marked tendency of the right lobe to enlarge. In the 119 cases at this hospital the left lobe was rarely affected.

In the majority of the cases a stationary point seems to be reached from which no further enlargement takes place. For example, Case No. 36, came to the Newberry State Hospital in 1897. She was then 37 years of age and was brought here from another hospital. She had a marked enlargement of all three lobes. No treatment of the goitre has been given since her admission and apparently there has been no increase in size. She works industriously, and has done so for many years, at the sewing room, and seems unaffected by the large thyroid. There are many cases with a similar record. It appears to be only the exceptional case that goes on to enormous enlargement.

The highest pulse rate of all the cases was 112. The enlarged glands do not seem to interfere with the general comfort of the patients. The woman whose goitre measured twenty-one inches insists upon scrubbing. She seems to enjoy the more laborious work and to be perfectly able to do it. She shows no marked increase of pulse or respiration, or any cyanosis from her efforts.

PART II.

ROUTINE EXAMINATION OF ALL NEW WOMEN
PATIENTS FOR A PERIOD OF SIX YEARS.
1910 TO 1916.

The total number admitted was	426
Enlargement of one or more lobes	93
Normal gland	292
No observation recorded	41

The reason for no record in some cases was that the patient was too ill for physical examination, and in a few cases, the examination was made by a physician who failed to make special note of the thyroid. In this event, it is possible that the thyroid was not enlarged in any of these cases, and a statement to that effect was considered unnecessary. For that reason, the cases in which no observation was made might be included as negative in calculating the per cent of women afflicted at the time of admission. (Six year period).

Total number	426
Enlarged	93
Per cent enlarged	21

If the forty-one cases were disregarded in the calculation, the per cent of those afflicted would be thirty-one.

With the exception of patients who have returned home or died, all thyroid cases in this group have been included for further consideration in Part 1; i. e., as regards nativity, degree of enlargement, pulse, etc.

TREATMENT.

The external use of iodine, and internal use of iodides, have been used in some cases with good temporary effect. No form of treatment for all the women afflicted has been undertaken. Several years ago Berkeley (R. 9) and Follis advised the removal of the thyroid in cases of catatonic dementia precox. A number of cases of catatonic dementia precox were selected, being in an early stage of the mental trouble and having enlarged thyroid glands. Surgical treatment was undertaken, the thyroids being removed, the parathyroids allowed to remain. Of course, there was a radical cure of the thyroid trouble in all of these cases, but otherwise, the result was disappointing. There was no improvement in the mental state in a single case in the series quoted. Indeed, in comparison with preventive measures the treatment seems secondary and less important.

Since 5.8 per cent. of the cases have developed since their admission an examination of the water supply would be advisable. The experiments best suited to show whether or not the water was capable of producing goitre at the present time would be a modification of Gouget's, who dialyzed the water. The material dialyzed from water from these wells could be given to puppies used as test animals, as they are highly susceptible to goitre.

SUMMARY.

1. Twenty-eight per cent. of four hundred and twenty-five women patients have goitre. At least 5.8 per cent. have developed goitre since coming here.
2. Twenty-one per cent. of women admitted during a six year period had goitre.
3. Enlargement of the gland was not always symmetrical. Right lobe more frequently shows enlargement and is often the first part affected.
4. Many cases reach a stationary point from which no further development takes place.
5. All cases were the cystic variety, and there was no transition to the exophthalmic type in any instance.

6. No physical discomfort was apparent which was due to enlarged thyroid gland.

7. Cases among men are not unusual here, but cases in this series were all women.

8. Radical cure of a few cases by surgical treatment.

9. Experimental work advised: dialysis of water for goitre producing elements.

REFERENCES.

1. Dock: Goitre in Michigan. *Transactions of the Associations of American Physicians* 1895.
2. Hirsch: Handhook of Geographical and Historical Pathology, 2nd edition translated by Creighton, London, 1885.
3. Barton: A memoir concerning the disease of goitre as it prevails in different parts of North America. Philadelphia, 1800.
4. Kocher T.: Bericht uber ein zweites Tausend Kropfexcisionen. *Archiv. für klin. Chir.* 1901 LXIV p. 454.
5. Osler: On Sporadic Cretinism in America. *American Journal of Medical Sciences*, 1893. p. 503.
6. M. Wilms: Experiment—Erzeugung u. Ursach, d. Kropfes. *Deutsch. Med. Wochens.* 1910. XXXVI. 604.
7. Gouget. *Press. Medical* 1911, 709.
8. Edmunds. The pathology and disease of the thyroid gland. *Lancet*, 1901. p. 1317.
9. Berkeley and Follis.

EPIDIDYMYOTOMY.*

H. W. PLAGGEMEYER, M.D.
DETROIT, MICH.

The ineffectiveness of temporizing therapeutic measures for the relief of symptoms and the abridgment of the course of gonorrheal epididymitis has of late years led to much discussion as to the modus operandi of choice, with the balance slowly but surely falling toward the side of surgical intervention in an increasingly large proportion of cases.

From this standpoint it might be of advantage to consider briefly the general indication for mechanical interference, together with a discussion as to the most practicable general method of attack.

Francis Hagner of Washington is in this country usually credited with the inauguration of the practice, though he does not make this claim himself, being fully acquainted with the history of the operation which he later popularized and improved.

The first recorded open operation was in 1852 by Pirogoff who "punctured the testicle for orchitis," and it may be added that *to this day*,

*Read before the Michigan Section American Urological Association, Detroit, February 28, 1917.

we are subjected to the same lack of distinction, by the physician, between orchitis and epididymitis, the former being of course a pathological condition relatively rare.

It is apparent after a careful examination

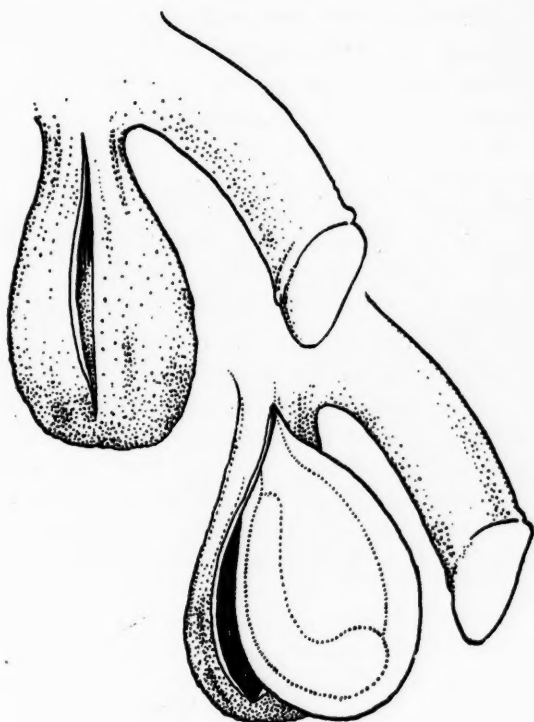


FIGURE 1

Fig. 1. Sac is everted as for bottle operation unless plastic adhesions prevent.

of the literature, that it has been only in comparatively recent years that the involvement of the epididymis was recognized as of more moment in gonorrheal infection than involvement of the testicle. The first operator to make an incision through the tunica albuginea was M. Vidal de Casis. In 1863 H. Smith reported in the *Lancet* that he had operated on the incredible number of 1000 cases. Both these operators, however, as is evident from the discussion in the *Lancet*, 1864, between Smith and Holmes thought they were operating on the corpus of the testicle itself. Spencer Watson and John Hunter seem to have been the first to regard the swelling as affecting both the testicle and epididymis. The former cited the anatomical analogy between the eye and the testicle as to its firm, hard, elastic capsular covering, and McNamara bears out Watson in this analogy by citing the great relief afforded glaucoma by puncture. Puncture merely of the tunica vaginalis was first recommended by Watson in 1867, and he quoted a series of twenty cases where it gave more relief than puncture of the albuginea.

This points to serous effusion between the coats of the vaginalis as the source of pain.

In 1905 Belfield published his "Pus Tubes in the Male," in which he scored the common belief that pus rarely forms in gonorrheal epididymitis, and advanced the opinion, that in a considerable proportion of cases, where the tunica vaginalis contains fluid, and an edema of the skin appears, pus is present in the epididymis. John H. Cunningham in 1915 reported a series, including six bilateral epididymotomies, in which 67 per cent. showed gross pus and *all the others* microscopic pus. The gonococcus was found in every case of macroscopic pus, and was present in nearly all the cases with microscopic pus. From this report one might then deduce the universal presence of massed leucocytic activity in all cases of gonorrheal epididymitis.

Baerman in the pathological study of twenty-eight cases deduced the following conclusions:

(1) In a considerable proportion of cases of epididymis, abscesses are formed in the epididymis.

(2) Suppuration is regularly followed by the appearance of hydrocele. (Hagner says

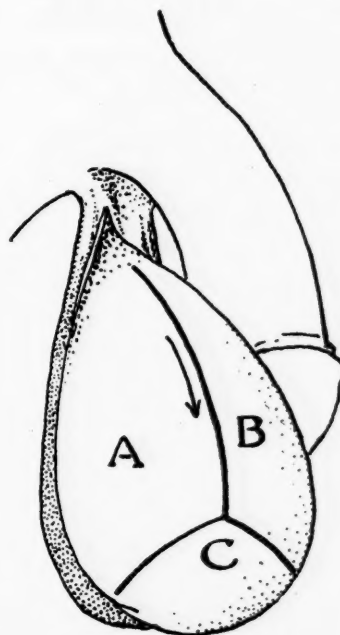


FIGURE 2

Fig. 2. Line of incision in tunica vaginalis. The flap C is usually bound down to the globus minor. By leaving C in place the undesirable condition in Fig. 4 is abrogated.

hydrocele has formed when no pus was demonstrable).

(3) Gonococci are found in foci in the epididymis years after the urethral infection occurred.

(4) Early puncture is advised to save the canal from occlusion.

(5) *The hydrocele should be punctured to improve the circulation.*

(6) Incision and drainage of the infected epididymis should be more frequently practiced.

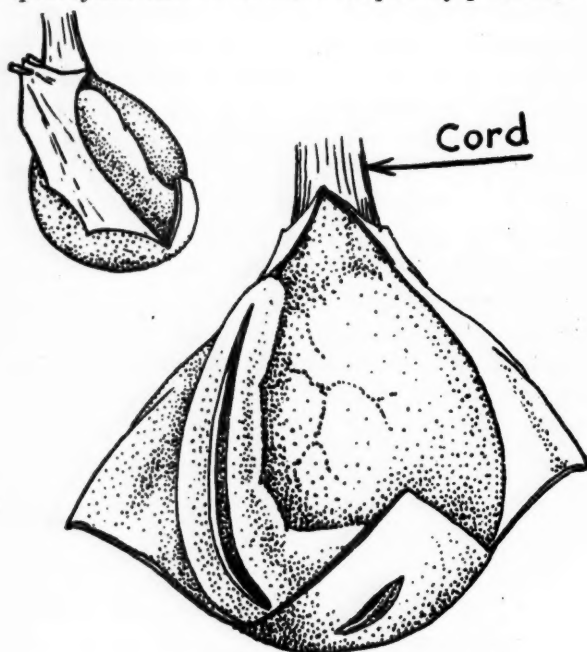


FIGURE 3

Fig. 3. Linear incision in epididymal albuginea simply to relieve tension. Below is the puncture into the globus minor.

In an exhaustive treatise Monod and Terrillon deduce the following:

(1) "In gonorrheal disease of the *testicle* the epididymis alone is involved."

(2) "There is a marked dilatation of all the tubes of the epididymis, which they believe to be due to the pressure caused by the infiltration of the inflammatory exudate into the connective tissue surrounding the tubules, resulting in more pressure at one point than another, and hence the obstruction produced causes a backing up of degenerated epithelial cells, pus, refractive granular material and spermatozooids."

(3) "Such obstructions have been known to lead to the most distressing degeneration of the seminiferous tubules with resulting atrophy of the testicle."

Experimentants made by Monod, Terrillon and Kocher to produce artificially the macroscopical picture of gonorrheal epididymitis, tend to show that the enlargement of the epididymis is due to the inflammatory exudate into the cellular tissues surrounding the tubules rather than to the changes which occur in the tubules

themselves. After having dissected off the connective fibrous tunic from the cord and having made an opening at its upper and anterior border, they fixed a cannula into the cellular tissues. Through the cannula they injected a weak solution of gentian violet. When the fibrous tunic had been sufficiently filled they saw that the induration characteristic of this special form was reproduced, and resembled an increase in size of the epididymis.

Hagner later repeated the experiment, injecting fluid under the fibrous covering of the epididymis in the regions of the globus major and minor, and showed a typical encroachment of the epididymis upon the testicle.

If these authors be correct in stating that the infiltration in the connective tissue of the epididymis causes the obstruction of the tubules in severe cases of epididymitis, then anything that will prevent or lessen this infiltrate is rational and justifiable. Even in the cases where free pus is not found, the infiltration is certainly relieved by the puncture. Therefore any operation that will rapidly relieve the tension

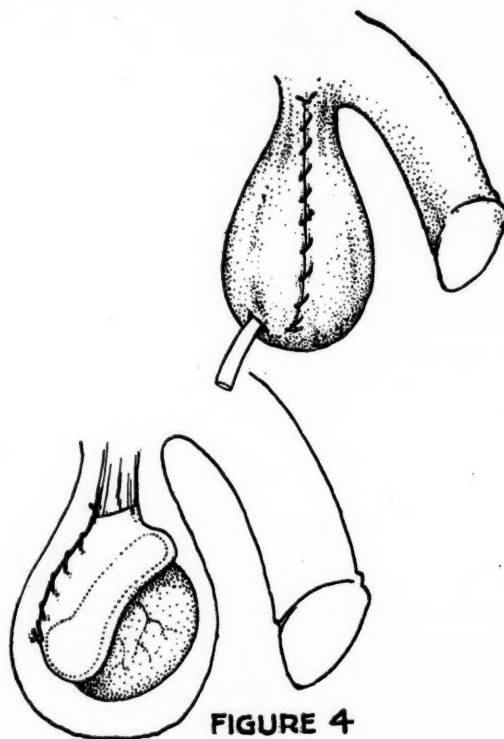


FIGURE 4

Fig. 4. The way it should not be done. This method incarcerates any pus present, and fosters a hematocoele from the incision in the epididymal albuginea.

in the early stage is a most important step in the right direction.

One, of course, realizes fully that, in gonorrheal epididymitis, most cases will recover with medical treatment only, but certainly the severe cases will not recover as rapidly or with as little

anatomical disorganization, when medical treatment alone is employed.

The argument might be summed up as follows:

With medical treatment only:

- (1) The case will in all probability keep patient off his feet for two weeks or even three.
- (2) He is not immuned from another attack on the same side, quite the reverse being the case, as recurrences are proverbially common.
- (3) The patient is often subjected to excruciating pain for a week or more with all the concomitant disturbances of general metabolism.
- (4) The length of time of involvement enhances the probability, through continued pressure, of occlusion of the duct, with subsequent atrophy of the gland, primarily affecting the spermatogenic function, and secondarily the hormonopoietic activity, by impairment of circulation from the ever-increasing hydrocele concluding the vicious circle through the consequent inhibition, part or whole, of the free activity of the interstitial cells of Leydig.
- (5) There is a far greater probability of involvement of the opposite side.

On the contrary:

With immediate operation properly performed, the hydrocele is reduced, the pressure in the epididymal sac is abrogated, and pus, if present in mass, is evacuated; the patient is almost immediately freed from pain and its attendant disruption of bodily economy, the patency of the duct, and the further integrity of the internal and external secretory cells re-established, the patient is on his feet in a few days, there is little liability of recurrence on the same side, and a much diminished hazard if participation by the epididymis on the side opposite, with a greatly reduced percentage of subsequent sterility.

Surely these are potent and practical arguments in favor of intervention where (1) *pus*, (2) *pain*, or (3) *hydrocele* are present.

There are probably 20 per cent. of the cases which never in any sense become fulminant, which flare up and then begin to subside on the second day, the epididymis is tender, but soft and leathic, and the patient is not sick. It might not be temporizing to watch such a case for two days, as some of them subside quickly, and the after history is uneventful, but if after the third day the condition is obviously becoming progressively worse, the writer would most

eagerly suggest mechanical attack, and by any method that will give a thorough exposure and a permanent result.

A. C. Wilson has proposed to encircle the affected testicle with a fine piece of rubber tubing secured by artery forceps, for one hour a day if it can be borne, and reports an average duration of eight days in six cases, so treated, but this use of the Bier doctrine is only a palliative measure directed against the exigency of the moment, and in no way insures the patient against recurrence, nor frees him from the nidus of infection.

The practice of simple incision over a pus sac in the globus minor is open to much the same general criticism, and according to McKenna is the act of a faker.

Several open operations have been devised, the best being those of Cunningham and Hagner who incise laterally over the site of the epididymis, cutting through the vaginalis and bringing the testicle out of the wound, then puncturing the epididymis and closing with a drain through the lateral opening.

The writer would humbly suggest the following technic:

- (1) Incision on the ventral surface of the scrotum down to the vaginalis.
- (2) Eversion of sac *in toto* as for a Willys-Andrews operation. (Fig. 1)
- (3) Longitudinal incision the whole length of the tunica, with a right and left oblique deflection at the lower end an inch long to form a Y. This permits an eversion of the sac without incarcerating a pus sac if present at the lower end, and where pus is present the small triangle of vaginalis left at the lower end is always plastically bound down, and will not remain as a superfluous flap. (Fig. 2, Fig. 4)
- (4) Incision of abscess or abscesses, if present in the glonus minor or body, with a single longitudinal incision along the line of the epididymis to relieve tension. (Fig. 3)
- (5) Anchorage of the everted vaginalis with a mattress suture of No. 2 chromic gut, placed loosely behind the cord, high up, to prevent recurrence of hydrocele, which it will do in a very large majority of cases.
- (6) Counter puncture through the most dependent portion of scrotal sac and drainage of cavity through a small rubber tube for forty-eight hours.
- (7) Irrigation with hot normal saline.
- (8) Replacement of testicle, and complete

closure of upper wound with interrupted sutures of silk worm gut.

This technic prevents the recurrence of hydrocele, frees tension, and at the same time takes care of the gross pus formation. It has been practiced by the writer in twenty-two cases with entirely satisfactory results in each case, and with no untoward sequellae of any sort.

1001 David Whitney Bldg.

BIBLIOGRAPHY.

- Smith, H. *Lancet*, Vol. 2 p. 149.
 MacNamara. *Medical Times and Gazette*, 1866, p. 520; 1867, p. 390.
 Beifield, W. T. *J. A. M. A.*, April 22, 1905.
 Belfield, W. T. Epididymectomy and Removal of Testes for Tuberculosis. Discussion Chicago G. U. Soc., 1911.
 Baerman. *Deutsche Medizinische Wochenschrift*, 1903, No. 40.
 McKenna, C. M. Surgical Treatment of Acute Epididymitis, *Surg. Gyn. and Obst.*, December, 1916.
 Merritt, E. P. A New Operation for Epididymotomy, *J. A. M. A.*, Sept. 11, 1915, p. 949.
 Hagner, F. R. The Operative Treatment of Acute Gonorrheal Epididymitis. *Medical Record*, December 1, 1906.
 Eckels, L. S. Epididymotomy, the Radical Operative Treatment of Epididymitis, *J. A. M. A.*, 1913.
 Knight, C. P. Epididymotomy with Report of Cases. *Am. Jr. Urol.*, 1914.
 Cullen, E. Epididymotomy, A Plea for a Rational Treatment of Epididymitis. *Am. Jr. Urol.*, 1913.
 Clark, J. B. Surgical Treatment of Acute Gonorrheal Epididymitis by Epididymotomy. *Am. Surg.*, 1914.
 Cummings, Chas. Greene. Tuberculosis of Epididymis and Testes. *Annals of Surgery*, 1909.

THE USE OF SULPHIDES IN THE TREATMENT OF MERCURY POISONING.

M. L. HOLM, PH.C., M.D.
 LANSING, MICH.

In view of the universal use of mercury and its various combinations in the practice of medicine and the frequency of toxic symptoms from this drug ranging from slight salivation to fatal poisoning I have been rather impressed with the meager references found to its chemical antidotes in our general literature.

Every physician finds himself frequently in positions where he deems it advisable to administer mercury in insoluble or slightly soluble form in doses largely in excess of what with more soluble forms of mercury would produce toxic symptoms.

Our literature abounds with caution against the use of acids after the administration of calomel yet there is apparently neither chemical nor clinical evidence of any danger from such a combination. On the other hand little or nothing is said about the danger of iodides in connection with large doses of the less soluble mercury preparations and in view of the fact that both drugs are regarded as specifics in syphilis this has seemed to me a rather dangerous oversight.

The iodides form very soluble double salts with mercury compounds and some of the most severe cases of salivation have resulted from this combination.

Mercury poisoning results when an excessive quantity of mercury in soluble form is present within the body. The logical treatment therefore might be either an endeavor to hasten the elimination of the mercury or to render it less soluble. The former may be accomplished by means of the iodides and the latter by means of sulphides. In mild cases of salivation where little or no excess of insoluble mercury is deposited anywhere in the body the use of iodides may be reasonably safe but the first result is always an aggravation of toxic symptoms and the elimination of mercury even as a double salt with iodides is rather a tedious process.

In severe cases of mercury poisoning the administration of iodides is decidedly dangerous and an endeavor should be made to render the mercury insoluble as quickly as possible and keeping it so until all toxic symptoms have subsided. In doing this I advise the use of calcium sulphide in 1 gr. to 5 gr. doses depending upon the severity of the case, by mouth or per rectum or both, repeated every one-half to one hour until the odor of hydrogen sulphide becomes distinctly perceptible from the patient's breath. The quantity and frequency is then diminished but the administration of sulphide is continued until all toxic symptoms from the mercury have disappeared.

In place of calcium sulphide, liquid calcium sulphurata N. F. or in case of emergency even

the common "lime sulphur" spraying solution may be used.

I first used sulphide in the treatment of mercury poisoning three years ago and was impressed with the rapid and complete results. Since that time I have used it in every case with equal success. I feel that we have in the sulphides an absolute control over the action of mercury within the system and that their prompt and early use will alleviate a great deal of unnecessary suffering and occasionally save a human life.

Lansing Clinical Laboratory.

GASTRIC ULCER ASSOCIATED WITH THE GASTRIC CRISES OF TABES DORSALIS.

CHARLES W. HITCHCOCK, M.D.
DETROIT, MICH.

March 1st, 1914, there came under my care, W. E. T., age 58, by occupation a dentist, who asserted that his habits had been good of late years but exhibited a reluctance in talking of his earlier life.

He had been healthy as a boy and young man and until about fifteen years before, when he had what he thought was rheumatism (the frequent careless diagnosis of early tabes), but was finally diagnosed as neuritis, and this he claimed to have had, more or less, ever since. He complained of sharp, severe pains then present in the left arm, and always confined to the arms and trunk, never anywhere else.

He looked thin, pale, anemic, and suffered daily with pain which came in spasms, was knife-like in character, and occurred usually in the early morning and late afternoon.

Examination showed an entire absence of the knee-jerks, his pupils were unequal, the left the larger, and neither responded to light. Vision had been impaired for some time. He had had the girdle symptom, and he swayed markedly on standing with eyes closed. Bladder and bowels were well controlled. There was no manual ataxia and gait was not at all ataxic. He improved under daily rubs of mercury, and sedatives so controlled his pain attacks that he was not seen until September, 1915, when he was again seen suffering with paroxysms of severe pain confined to the arms.

July, 1916, he complained of swelling of feet, and left ankle was quite edematous, pulse rapid and irregular, and apex beat over an inch outside the nipple line. Pains were recurring with more frequency, and his left fundus showed a well-marked optic atrophy.

September 27, 1916, he had been vomiting through the night and all that day, ejecting large quantities of blood, though in less pain than usual at his crises. Under ice and ergot, the vomiting and hemorrhage quieted, and he seemed usually well until October 30, 1916, when I saw him in the late afternoon, vomiting matter of stercoraceous odor, looking weak and exsanguinated, though no blood was noted in the vomitus at this time. He died soon after being admitted to the Henry Ford Hospital, that same evening, and by the courtesy of Dr. Brown, Superintendent, and Dr. Sladen, of the medical staff, I am able to present the following notes of the autopsy:

"The body is that of an undernourished white man 172 cm. long. The skin is clear. The abdomen is very much distended. The pupils are large, about equal and irregular. There is serous blood-tinged fluid draining from the mouth.

"On opening the abdominal cavity, a large amount of turbid fluid begins to flow out and a moderate amount of air bubbles through the fluid. The small intestine is very much distended and the coils are glued together by a fibrinous exudate which also covers the parietal peritoneum. The exudate can be peeled off from the peritoneum. There is a fine band of adhesions extending from the omentum and transverse colon to the midline of anterior abdominal wall, well below the umbilicus behind which a loop of jejunum is caught. Above this obstruction there is extreme dilation of the jejunum and duodenum; below it the intestine is normal in size. Just above the obstruction there is a definite twist to the intestine. The appendix is very short and hangs free. There are numerous adhesions around the cecum. The anterior wall of the stomach is bound to the under surface of liver by fresh adhesions.

"The right pleural cavity contains about 300 cubic centimeters of slightly turbid fluid and the base of the lung is firmly tied down to the diaphragm by dense adhesions. There are a few adhesions on the left. The left pleural cavity contains about a liter of clear fluid. The lungs meet in midline and completely cover the pericardium.

"The pericardial cavity contains about 50 cubic centimeters of fluid. The pericardial surfaces are smooth and glistening.

"*Heart:* weighs 390 grms. The surfaces are smooth. All the heart valves are delicate and show no thickening. The heart muscle is normal. Around the opening of the left coronary artery there is a patch of arteriosclerosis. The artery just admits the tip of a small probe. The right coronary artery is normal.

"*Lungs:* are voluminous—everywhere crepitant. On cut section much fluid can be expressed from the

alveoli. The larger bronchi are injected and contain a pinkish frothy material.

"*Spleen*: weighs 90 grams. It is soft. The surface is wrinkled. There is some increase in connective tissue.

"*Stomach*: is covered with fresh exudate on the anterior surface. On the posterior surface near the lesser curvature about 6 cm. from the pylorus there is a large punched out ulcer involving all the layers of the stomach wall and connecting with the lesser peritoneal cavity. The margins of the ulcer are indurated and there are several small bleeding points in the margin and some fairly fresh adhesions around it. The mucous membrane is pale pink.

"*Pancreas*: is of usual size, shape, color and consistence.

"*Liver*: is normal size. The surface is irregular, showing numerous small depressions and elevations. The cut surface is brownish in color. The lobules are well marked. The gall-bladder is adherent to colon and contains a small amount of orange colored bile.

"*Kidneys*: are small, weigh 180 grams. The capsule strips with some difficulty, leaving a granular surface. On section the cortex is very much thin-

ned out, the striations are almost obliterated and the glomeruli cannot be made out. The pyramids are of a dark purple color. The pelvis is normal.

"*Bladder*: Ureters somewhat dilated. The bladder is larger than normal and the wall is very much thickened. There is very marked trabeculation of the mucous membrane which otherwise appears normal.

"*Intestines*: Jejunum and duodenum much dilated. Peritoneal surface of entire intestine injected and covered by yellow friable exudate. Large intestine shows nothing of interest except the exudate.

"*Brain*: not removed.

"*Spinal Cord*: Dura shows no abnormalities. There is very definite degeneration of posterior columns in lumbar enlargement which extends up the thoracic cord.

"*Anatomical Diagnosis*: Gastric ulcer (perforated), acute fibrinous peritonitis. Peritoneal adhesions. Intestinal obstruction. Chronic diffuse nephritis. Arteriosclerosis of left coronary artery. Emphysema of lungs. Bilateral pleural effusion. Hypertrophy of bladder. Degeneration of posterior columns of spinal cord."

1501 David Whitney Building.

AFLOAT AND ASHORE.

Two new products which are attracting unusual attention, both in this country and abroad, are Cholorazene (Abbott), Dakin's New Antiseptic, and Parresine (Abbott) the improved, hot-wax dressing for burns. Both of these remedial agents have been passed by the Council of Pharmacy and Chemistry of the American Medical Association, to appear in their "New and Non-Official Remedies," and have been ordered by the United States Navy to be placed on every ship.

The results which are reported by surgeons and hospitals in the use of Cholorazene and Parresine are so remarkable that it would surely pay every physician to become better acquainted with these products.

Literature will be sent on request to The Abbott Laboratories, Chicago, Illinois.

PROPAGANDA FOR REFORM.

Piperazin and Other Organic Urate Solvents.—From a review of the literature P. J. Hanzlik concludes: there is no reliable evidence to show that piperazin, in small or therapeutic doses, imparts to urine urate solvent qualities, either in direct addition or after excretion; excessive doses produce a slight but negligible increase in uric acid excretion, the same being effectively produced by sodium bicarbonate or sodium citrate; there is no reliable evidence to indicate that piperazin can remove or pre-

vent urate deposits; diuresis is uninfluenced by even large doses of piperazin and its administration does not materially reduce the acidity of the urine; scientific evidence, though limited, and clinical opinion indicates that piperazin is valueless in gout. Hanzlik also reports that there is sufficient evidence to indicate the worthlessness of the following as urate solvents: quinic acid, quinoline, colchicum, piperidin, Urosin, Lycetol, Sidonal, Lysidin and Urol (*Jour. Lab. and Clin. Med.*, Feb., 1917, p. 308).

Cyanocuprol.—Studies of the effects of "cyanocuprol" on tuberculous processes, carried out by Japanese investigators, have been published. "Cyanocuprol" is stated to be a copper cyanid preparation, the exact composition of which is being kept secret. Even if its identity should become known, the use of "cyanocuprol" is decidedly in the experimental stage (*Jour. A.M.A.*, April 7, 1917, p. 1057).

Ambrine.—Ambrine is a French, secret preparation that has been on the market for many years. It has recently come into prominence through sensational articles in the lay press. For all practical purposes it is solid paraffin to which some material has been added to make it adhesive and more plastic. For use it is heated until liquid and then applied to open wounds and burns, forming a relatively impervious dressing (*Jour. A.M.A.*, April 7, 1917, p. 1057).

TRANSACTIONS

OF THE

Clinical Society of the University of Michigan

Stated Meeting, March 7, 1917

The President, CARL D. CAMP, M.D., in the Chair
Reported by REUBEN PETERSON, M.D., Secretary

DEMONSTRATION OF TWO PATIENTS SHOWING ABNORMALITIES OF CONDUCT ASSOCIATED WITH PSYCHONEUROTIC DIS- ORDERS.

ALBERT M. BARRETT, M.D.

(From the Psychiatric Clinic, University Hospital, Ann Arbor, Michigan.)

1. *A Patient Showing Abnormal Impulsions Associated With Stealing. Kleptomania.*

Those who are interested in problems of criminality are sometimes concerned with cases in which the impulses which lead to crime are so unusual in their intensity that they at once suggest the character of being abnormal and even manifestations of a definite disease.

In adults and criminals who are repeated offenders the pathologic character of the impulsiveness leading to the act is not always convincing and the problem of differentiating between responsibility and irresponsibility is difficult. Even among these there are individuals who in addition to abnormal impulsive reactions have other symptoms of psychoneurotic character, which suggest that their acts are not to be judged by the standards applied to normal individuals.

Occasionally this problem is met with in the consideration of the conduct of juvenile delinquents.

Recently there came under our observation a young boy aged eleven, who had been brought into the Juvenile Court of Wayne county because of truancy and stealing small sums of money. The fact that his stealing was of a peculiarly impulsive character and was frequently associated with headaches and neurotic manifestations, suggested the desirability of medical observation and on February 3rd, 1917, he was admitted into the Psychopathic Hospital at Ann Arbor.

He was a boy of good physical development and attractive in his childish frankness and nice manners. He appreciated clearly the circumstances associated with his coming to the Hospital and frankly told with little embarrassment that he was here because he "stole and had headaches." For many years he has been unable to resist taking sums of money, usually small, which he knew might be within his reach. He has done this as long as he can remember. Rarely is there any previous planning of a theft. It is only after seeing the money that the desire for it arises and he then is uneasy until he gets it. If there is no one present he will take it at once. If others are in the vicinity he waits for an opportunity. Any delay in carrying out his impulse is distinctly troublesome to him and is accompanied by definite physical suffering. He describes this as a headache which increases in intensity until he sometimes becomes nauseated. His mother has often observed this disturbance. She remarks that his face becomes drawn and there appear in his forehead marks like finger dents. After the headaches pass away, feelings of dizziness come on, which last from a few minutes to half an hour. If he can at once take the money these disturbances remain absent. The money is always spent for candy. On one occasion he took the pocket book of his teacher which contained over \$12.00 and within a few days spent the entire amount for candy. These attacks are becoming more severe and frequent and are only associated with his impulse to steal. Recently he has been watched so carefully that he has had few opportunities to get money. As a result he seems to be continually under extreme nervous tension.

In addition to this he sometimes experiences attacks in which he gazes at the wall as if dazed. Sometimes in these he laughs and twists his mouth peculiarly. Only if shaken and called

to loudly does he rouse out of these. Afterwards he always seems rested and relieved. Of late he has been walking in his sleep. At these times he will hold conversations with his mother, answer questions rationally, and in the morning have no memory of the incident. These experiences are always preceded by a severe headache before going to bed.

He himself describes periods of staring at the wall, where he sees pictures moving before him. These take the form of some picture play he had previously seen. Dreams are frequent. Often these are of people coming with guns and knives to kill him. Recently after having taken fifty cents from his mother's room he dreamed that he went to the bakery and spent all of the money for cakes. There was a man in the shop and money was falling out of his pockets. When he was leaving there were little piles of coins lying about the floor. These he picked up and hid in his pocket as he left for home.

Since he has been under observation in the hospital there has been one instance of sleep walking. Several times he has told of dreams of fantastic and vivid character. In other respects his reactions have been those of a normal healthy boy. In his intellectual development he passes successfully the tests of the Binet scale for the age of fourteen.

That in this case we are concerned with a psychoneurotic disorder is evidenced in the hysterical disturbances of consciousness which occurred at various times and the presence of diminished pain appreciation over one side of the head and right side of the body, and a slight hysterical contraction of the visual field.

An important factor in the production of his disorder is the presence of syphilis, which is shown by a positive Wassermann reaction upon his blood, which has been repeatedly obtained. At first this was of a 2 plus strength and more recently it has been 4 plus. The cerebrospinal fluid shows 6 cells per cu. mm. and a very slight change in color of the third, fourth and fifth tubes by Lange's colloidal gold test. Otherwise the fluid is not pathologic. The only neurologic evidence of the effect of syphilis is inequality of the pupils and a slight slowing of the light reaction. There are no stigmata of syphilis seen in the teeth or body structure.

An interesting factor of possible determinative importance in directing the abnormal impulsive thoughts towards stealing rather than in other directions is that the boy's mother was a repeated offender by stealing and was a sex

delinquent. This led to a divorce by his father when the boy was about two and a half years old. The children were then cared for by their father's mother until our patient was about seven years old. Since then his new mother has been very fond of him and his home relations have been unusually good.

It is possible that the boy's acquaintance with stealing has been directed by discussions in the family of his own mother's conduct. It was never because of lack of money because he was always given all he needed to spend for his childish wants.

In the peculiar impulsive character of the stealing the case may be grouped with the disorder classed as kleptomania. The important factor in this, as in other impulsive anti-social acts, is the irresistible force which leads to the action and which places these as types of disorders which are to be judged from the medical as well as the forensic point of view.

As treatment the boy has received seven intravenous injections of salvarsan without any improvement in the Wassermann reaction. In view of this, further treatment along this line will be discontinued for the present and the boy will be given a series of intramuscular injections of mercury succinimid.

It is not best that he be kept much longer in the Hospital. As he has been living in a crowded city district, it is advised that his life for the next few years be in some place in the country, or at least away from the associations which have in the past so intimately been related to his acts of stealing. Were he to return to these it is doubtful if he could remain well.

It is probable that after a few years the strength of these impulses may be lessened as his interests become attached to occupations and diversions harmless in their nature. However, the prognosis must be doubtful in view of the constitutional syphilis and the existence of an hysterical temperament.

2. A Case of Compulsion Neurosis.

A condition somewhat similar to that of the small boy in that the conduct of the individual stands in a very close relation to emotional disturbances of unbearable effects, is found in a young Italian woman who has been in the State Psychopathic Hospital for a few weeks. For some time she has been suffering from a feeling that she is being contaminated by uncleanness and that she in turn may spread this contamination to those around her. This has led to her spending hours each day in

cleaning her home, her clothes, and whatever she may come in contact with. This impulse to avoid objects that she fears may contaminate her and the great expenditure of energy necessary to keep herself and her environment clean makes her life a burden to her and brings her to the Hospital for treatment.

She is an Italian woman, twenty-three years old, who came to this country when a child and lived here until she was about twelve. At this age she returned to Italy and for three years was a student in a convent. After this she returned to this country and at the age of fifteen was married. Almost at once there occurred experiences which made her future married life unpleasant and undoubtedly had much influence in the development of her obsessions.

In August, 1914, she was in Italy caring for her grandmother who was dying from a cancer. There developed at this time a fear that she might be contaminated if she came in contact with the toilet seat. It was not so much a fear of her own contamination as it was that she might bring harm to others whom she came in contact with. For this reason she would wash the seat thoroughly and then be careful that all that had been employed in the cleansing process was put away so as not to touch others. Her own hands she would wash repeatedly and even then she would wash her dress at night because she might have contaminated this in handling the buttons during its removal. Should she touch the tablecloth she would not be easy until it had been washed. One can imagine how extensively such an idea must affect her conduct in all of its phases. Her life became a continuous series of cleansing acts and of great scrupulousness in avoiding objects which might in some way have come into contact with a toilet. Such was her condition when she entered the Hospital on January 27th of this year. She was at this time in the later stages of pregnancy. The fear of contamination and of being unclean concerned all of her activities. She realized clearly the foolishness of her fears but no matter how hard she tried the fears still remained and caused her continued torment.

One incident and its ramifications is illustrative of many others which are continually occurring. On one occasion, recently, she saw a nurse throw a rag, which had been used to clean the seat of the toilet, into the waste can. A day or two later she herself threw something into this same can, and in doing so thoughtlessly touched the cover. At once there arose the

memories of the rag which had been thrown away a few days earlier. She then felt as if she had been made unclean, and that she had contaminated everything she had come in contact with since the incident. It was impossible for her to feel comfortable until she had thoroughly cleaned herself, her hair, her room and numerous objects about the ward. Even after doing this there still remained an uncertainty as to whether she had done all that she could and for this reason she was quite uncomfortable.

While these obsessing fears vary in their intensity, with occurrence of incidents which may precipitate them, there is continually present a state of dejection as she realizes her helplessness in resisting their force.

One recognizes that the symptoms and course of this disorder belong to that form of the psychoneuroses, described sometimes as obsessional neurosis, as psychesthesia, or more frequently as compulsion neurosis.

The specific character of the ideas and fears which obsess the individual vary much. While in this instance the fears stand in relation to the idea of being unclean or contaminated, constituting a clinical variety sometimes designated misophobia, in other instances the fears may relate to places, such as the varieties, claustrophobia and agoraphobia, or to fears and dreads of a large variety of objects or situations.

In all instances the idea which has the compelling force is one which in some way has become over-emphasized with feeling. It is this over-emphasis that gives it an obsessing quality.

Freud has shown that the particular idea which obsesses the individual has not normally the amount of feeling quantity which it now bears. It has taken to itself feeling which originally was a part of some other idea. This feeling becomes available for the attachment by derivation from some idea which had been repressed from the consciousness of the individual because of its unbearable qualities. The feeling then remains free, and ready to attach itself to some other idea. Commonly the idea which attracts the feeling is one which in itself is of more than usual emotional emphasis. In the case of our patient this idea was that of uncleanliness.

The ideas which are most liable to repression are those which stand in opposition to the feeling of right. Experiences, in the study of psychoneuroses, are quite convincing that the commonest ideas to awaken conflicts and thus bring about repression, are of sexual character.

When we study the past experiences and reactions of our patient, with the view of finding a source for the development of mechanisms leading to the compulsive ideas which are troubling her, we find that her life has been rich in factors which are of great significance for the origin of a psychoneurosis.

We find that soon after her marriage, she discovered that her husband had previously been married and thus, according to the doctrines of her church, she had committed a great sin. There was always present, after this, a feeling of doubt as to what course she should take and whether or not she should leave her husband. She never developed a normal affection for her husband and in her marital relations she was sexually anesthetic. Because of this attitude her husband became suspicious and jealous and thus the difficulties of her situation were increased. Conditions were created which made it easy for any latent tendency to a psychoneurosis to assert itself. However, these did not offer any adequate explanation for the origin of the feeling which gave to her ideas such obsessing qualities. Such, according to Freud, must have their origin in experiences encountered during the early child life, which later lead to conflicts and thus to repressions. As one might expect, there are no conscious memories of experiences which might have traumatic force. Her life as a child was made unhappy by quarrels between her mother and father, after one of which she had an attack of complete deafness for three days. She seems to have been unusually scrupulous in her habits. Even as a child she remembers the contrasts between cleanliness and uncleanness being forcefully presented to her in matters of discipline.

There are several occurrences in her childhood days which show a peculiarly responsive attitude on her part towards matters of sexual suggestiveness. As she looks back, she now recalls, that others must have thought her interested in such matters from the way they spoke to her about them. She herself cannot recall that she was unduly curious nor did their sexual character suggest itself at that time. Had any such interest been present, her training for three years in a convent would have furnished occasions for severe mental conflicts. Here between the ages of 12 and 15 she was continually taught the evils of worldly thoughts. On one occasion she was severely disciplined for what was on her part an entirely innocent action, but was regarded by the sisters as some-

thing suggesting sexual curiosity. Immediately after leaving the convent she became deeply attached to a man whom it was impossible for her to marry. A few months later, at the age of 15, she married her present husband, and entered into a life full of difficulties and trying experiences.

She has been under observation too short a period for one to feel that much has been learned about the etiologic mechanisms. What has been learned has been of interest, in that it agrees with what is usually found as the basis upon which the psychoneuroses develop.

While the condition at the present time is a compulsion neurosis, there have been through her life episodes distinctly hysterical in their nature. Such as the attacks of deafness during childhood and the sexual anesthesia that has persisted during her married life.

It is of interest to note that she has suffered most from her compulsive ideas at times, when her general health has been impaired, and when her marital difficulties were most trying. Her recent fears have been much increased since she has been pregnant.

The patient will remain in the Hospital until after confinement, and it is hoped somewhat longer. If so, it may be possible to carry through a psychoanalytic study of her experiences, in the hope that it will lead to a better understanding of the origin of her fears and to an improvement, if not cure, of her troublesome disorder.

DISCUSSION.

DR. CARL D. CAMP: I was particularly interested in one feature of the first case and that is the presence of inherited syphilis. While it is possibly true that the inherited syphilis has no direct connection with the impulsive psychosis, yet the case resembles very closely cases reported under the title of "degenerative hysteria" where there is a tendency to truancy, prostitution in the case of girls, and kleptomania and incendiarism in the case of boys, and I have been rather struck with the frequency of a report of a positive Wassermann reaction in these cases. I think that is a point for further investigation.

A CASE OF SARCOMA OF THE SPINAL CORD, WITH OPERATION.

CHARLES L. WASHBURN, M.D.

(From the Surgical Clinic, University Hospital, Ann Arbor, Michigan.)

The following case of spinal cord tumor is brought to your attention because of the multiple character of the tumor growth and its successful removal with two subsequent operations rendered necessary by the persistence of

spasticity in the muscles of the lower extremity.

In the autumn of 1912, the patient, a lady 32 years of age, began to have sharp shooting pains beneath the right scapula, rendered more severe by use of the arm. The previous personal and family history is negative. Up to July, 1914, there were repeated attacks of sharp, shooting pain in the same locality. The pain, in the latter part of 1913, began to be referred to the right lower rib margin, in the region of the gallbladder and a band-like feeling developed at the level of the ninth rib, on the right side. In November, 1914, the pain left the right side and shifted to the left scapular region. The band-like sensation developed on the left side at the same level as on the right and was continuous about the body.

The patient gradually became unable to rise from a reclining position and spent most of her nights sleeping in a chair. In September, 1915, a nephropexy was done on the right kidney. This operation did not relieve the pain.

August, 1915, the patient gave birth to a child and at once noticed numbness and loss of the sense of position in the feet and legs. The hamstring muscles became spastic so that she was unable to stand. In May, 1916, there was a sudden complete loss of control of the sphincters of bladders and rectum.

The patient entered the Neural Clinic of the University Hospital, August 11, 1916. The neural examination by Dr. Camp was as follows:

Fairly well nourished woman of 36 years. Legs are contracted and in flexion. Contraction can be overcome with difficulty. There is anesthesia of the skin extending about two and one-half inches above the umbilicus in front and higher in the back. The X-ray from the fourth to the twelfth dorsal vertebra is negative. Wassermann on the blood, negative. All reflexes markedly exaggerated. Positive Babinski.

August 17, 1916, the patient was operated upon in the Surgical Clinic. A linear incision was made over the spine about ten inches in length, the seventh spine being at the center of the incision. The spinous processes were exposed and from the fifth to the ninth were removed. By means of bone forceps the posterior part of the spinal column was opened, exposing the dura from the level of the fifth to the ninth vertebra. Exactly at the level of the seventh vertebra a definite bulging of the dura was noticed and a marked resistance to the palpating finger. This swelling was about

one and a half inches in length. Hemorrhage was controlled by ligatures and by gauze soaked in adrenalin solution, 1-10,000. The dura was opened at the site of this swelling and a tumor was exposed. This tumor lay in the subdural space and was connected by fine fibrous strands to the dura and to the pia. The tumor itself was freely movable and was easily removed. It was smooth, about the size and shape of a large pecan nut or a pigeon's egg. Adjoining this there was also a similar tumor about the size of a large pea, which was removed without difficulty. The spinal cord at this point gave evidence of much pressure but had not been invaded by the growth. The dura mater was sutured with fine catgut. The soft tissues were sutured with iodine catgut and the skin incision closed with silkworm gut. A soft rubber drain was inserted in the depths of the wound.

The pathologic examination of the growth removed showed spindle celled sarcoma, possibly arising from a neurofibroma.

Examination eight days following the operation showed temperature, pulse and respiration normal. There was severe drawing pain in both legs. Incontinence of urine and feces. Knee jerks equal. Marked ankle clonus. Complete loss of sense of position of the toes. Anesthetic areas at pubes in front and at lumbosacral articulation in the back.

The patient gradually improved and at the time of discharge from the Hospital, September 19, 1916, had fair control of bladder and rectum and could straighten the legs with some difficulty. The band sensation had entirely disappeared. After leaving the Hospital, a sharp, pulling pain developed in the sacral region. The thighs became flexed on the abdomen, and the legs flexed on the thighs. The contractions could not be passively overcome.

She returned to the Hospital November 30, 1916. The examination at that time showed a marked spastic condition of the muscles of the lower extremity. She had perfect control of the sphincters. The condition did not seem to be progressing. It was doubtful if there was a recurrence of the growth, more probably the present condition was due to permanent injury to the cord from the former growth. Exploratory laminectomy was advised.

December 12, 1916, patient was again operated in the Surgical Clinic. An incision was made from the seventh dorsal to the second lumbar. The spinous processes and laminae were removed from the second lumbar, upward to the site of former operation. The cord was

uncovered and no tumor mass found beneath the dura. The cerebrospinal fluid was under pressure. The cord pulsed readily. A director was passed upward, and the site of the former operation explored without locating any tumor. The dura was opened the entire length of the incision. The cauda was picked up and on the left side, the fifth lumbar and second sacral sensory roots were cut, also the twelfth dorsal. On the right side, the first sacral, fourth and fifth lumbar roots were picked up and cut. Spasmodic action was obtained in the limbs, while handling these roots. Care was taken to avoid injury to the third, fourth and fifth sacral roots. The dura was closed with continuous number 0 catgut sutures. The muscles and fascia of the back were stitched with number 2 chromic gut. The skin was closed with interrupted sutures of silkworm gut.

Following this operation the muscles of the thighs and knees gradually relaxed for about a week but did not completely straighten. During the second week the pulling and spasticity recurred. Evidently sufficient nerve roots had not been cut or the resection had been too low. The thighs became again tightly flexed, also the knees were forcibly flexed on the thighs and there was almost a constant pulling pain.

At the request of the patient, a third operation was done, February 17, 1917. An incision was made on a level with the second lumbar vertebra. The tissues were dissected up, the dura opened and the cord exposed. There were some slight adhesions between the cauda and the dura at this point, which separated readily with a blunt instrument. The first, second and third posterior lumbar roots were picked up at their points of exit. A complete resection of the second and third sensory roots was made on either side. The first lumbar roots were left intact. The cut ends of nerve roots of the former operation were plainly visible and had made no attempt at attachment. The dura was closed with continuous number 0 chronic gut, the fascia, with number 2 chronic gut. A rubber tissue drain was inserted beneath the fascia layers for drainage. The skin was closed with continuous silkworm gut sutures.

March 6, 1917. Since the operation, the patient has been more comfortable. There is, on the right side, a burning sensation in the thigh, leg and foot, but no recurrence of the muscle spasm. The left leg shows a similar condition and both are straightening out rapidly. There

is good control of the sphincters. The wound is healed.

Whether the spasticity in this case will be entirely overcome and the patient able to get about on her feet, or whether the muscle spasm will again recur, we are not prepared to conjecture at this time.

DISCUSSION.

DR. HAROLD DE B. BARSS: I have had the privilege of assisting at these operations and it is a case which I have been watching with a great deal of interest. I cannot say why the symptoms showed such marked improvement after the second operation, followed later by an exacerbation of the same symptoms and therefore it was with great interest that I watched the third operation and found that the nerves cut at the previous operation were still sectioned and showed no attempt at repair. We could not account for it by any error in technic at the previous operation. It was interesting also to note that after the second and third operations for a few days there was complete loss of control of the sphincters and that gradually she has obtained control of these functions. There is now complete control of the anal sphincter and she is slowly regaining control of the vesical sphincter. Her condition seems rapidly improving and we have every reason to hope that whatever was causing the extreme spasticity has now been ameliorated without necessitating the interference with the motor nerves. In that way we hope that she may gain use of the limbs whereas if we had done a more severe operation such as resecting the motor nerves, we might have removed the spasticity immediately but have obtained a permanent paralysis.

DR. CARL D. CAMP: One practical point is that this patient had the diagnosis of tumor of the spinal cord made some six months before she came to this Hospital and at that time an operation was advised but the patient refused to have it. This diagnosis was made by someone in Chicago. When she came to this Hospital she was, of course, quite prepared to have an operation, but it seems a great pity that she did not have the operation when the condition was first diagnosed because if she had, she probably would be entirely well at this time. After a tumor has compressed the spinal cord for a long time degenerative changes take place which are not relieved by the release of pressure.

DR. WASHBURNE: I have not had a great deal of experience with spinal cord tumors. This case was wished onto me, I being the only surgeon present during the summer vacation. It is rather interesting to me to see how many sensory nerve roots can be cut and the patient still have sensation. I shall watch this case with a great deal of interest to see just exactly how much good our operative procedures have done. I think already enough has been accomplished to warrant these operations. This woman was a pitiful spectacle when I first

saw her as she had no control of the sphincters, whatever.

There are other things we can do with this case if the spasticity recurs. We can do as is done in spastic paraplegia in children, tenotomies for the purpose of relieving the muscle spasm. I don't think this is going to be necessary unless the condition recurs. It seems to me that her limbs are beginning to let up. She does not complain of a pulling pain any more. It is a burning sensation. This is the first time that this has been so. So I look upon this as a hopeful case. We are going to put Buck's extension on the legs for the purpose of extending the knees, which will not relax on account of having been in this position so long. When the legs are straight we shall put on splints to hold them in position and get her on crutches as soon as possible.

THE DIFFICULTY OF DEMONSTRATING SPIROCHETES IN SYPHILITIC PLACENTAE.

R. A. BARTHOLOMEW, M.D.

(From the Clinic of Obstetrics and Gynecology, University Hospital, Ann Arbor, Michigan.)

In a recent study of a series of cases of pregnancy complicated by syphilis (1), I was impressed by the fact that in a considerable number of cases of undoubted syphilis, the placentae were diagnosed histologically as only suggestive and occasionally as entirely negative. In another group of cases there was almost no clinical evidence of syphilis and yet the placentae were diagnosed histologically as typically syphilitic.

The occasional failure of the clinical to confirm the histologic findings and vice versa, has more than a purely scientific interest, in that we are occasionally unable to recommend for adoption, an infant, negative in every way except for a placenta diagnosed as possibly or positively syphilitic. To be on the safe side, we often institute thorough antisymphilitic treatment in such a case—perhaps unnecessarily.

If such placentae really are syphilitic, the one absolutely conclusive proof should be the demonstration of the spirocheta pallida. Attempts to demonstrate the spirochete in syphilitic placentae by the silver impregnation method of Levaditi have frequently been made by different observers with results varying from partial success to complete failure.

The results of investigation along this line up to the present time have been collected and reviewed by Dr. E. P. Davis, of Philadelphia in a paper entitled "Syphilis In Its Relation to Obstetrics." (2) To quote from this paper:

Mohn reported sixteen cases of which six were positive. The spirochetes were frequently present in normal villi but were not found in decidua nor in spaces between villi nor in aggregations of cellular tissue. In the cord they were present in the walls of the vessels. He believed the evidence pointed to the passage of the infection from the fetus and not from the mother and inferred that in clear cases of syphilis the cord will be positive in 50 per cent., and the placenta in 70 per cent. Vollich and Leonditi found spirochetes in the fetal part of the placenta but only few in the maternal portion.

From a review of the literature and personal observations Davis concluded that the spirochete is the best evidence of syphilis; that the organism is rarely found in the placenta, but if present, it is in the fetal portion, in the walls of the villi, favoring the idea of the transmission of syphilis from the fetus to the mother; that in cases where the mother is syphilitic, although the fetus may show no signs of syphilis, spirochetes are found in the cord in over 50 per cent. and where both parents are syphilitic, the placenta shows evidence of syphilis in 70 per cent.

That these figures do not give a true estimate of the difficulty of demonstrating spirochetes in syphilitic placentae is attested by the results obtained by Pauli (3) who examined twenty-four histologically syphilitic placentae, by the Levaditi method and in not a single case was he able to demonstrate a spirochete although careful search was repeatedly made. In eleven of these cases large numbers of spirochetes were found in the fetal organs at autopsy. After a review of the literature on the subject, he concluded: 1. That the spirochete is rarely found in syphilitic placentae and then only after prolonged search. 2. That the anatomic changes in the placenta result from toxins produced by the spirochetes in the fetus and are not due to the actual presence of the organisms in the placenta. 3. That the placenta is not the focus of infection, this conclusion being borne out by the fact that the spirochetes are never found in the maternal portion of the placenta but only in the villi themselves.

Plass (4) reports the finding of the spirochetes in the tissues of thirty-five out of seventy-five babies dead from all causes and autopsied, but evidently he did not search for the organisms in the placenta, as he adds: "The *Treponema pallida* are present in the syphilitic placenta in such small numbers that they can be

Obst. No.	MOTHER					CHILD AT BIRTH.					PLACENTA			CORD		CON- TROL.	
	Full-term	Prem.	Misc.	Abort.	Wasser.	Notes.	Wt.	Condition	Wass.	Subsequent History.	Spiro- chetes demon- strated.	Hist.	Levaditi sections	Result	Levaditi sections		Result
1196	1			1		No history of lues. Prema- ture labor 7½ mo.		Still-born.	+++			(4)	3	Neg.		Positive	
1229	1				++++	Secondary stage of lues dur- ing third mo. of preg. Not treated. Prem. labor.		Still-born macerated.		Autopsied. Lues.	Positive	(4)	2	Neg.		Positive	
1235					—	No history of lues. Mild acute nephritis at 8th mo. Full term labor.	3720	Apparently normal.	—	Remained well. Wassermann nega- tive at 5th week.		(3)	3	Neg.		Positive	
1242				1	++++	No history of lues. Full term labor.	4120	Apparently normal.	—	Remained well.		(1)	3	Neg.		Positive	
1268					+++	Premature labor at 7½ mo. during secondary stage of lues. Not treated.	1870	Premature but apparently nor- mal.	—	Survived. Given in- jections. Wass. neg. at 4th mo.		(3)	4	Neg.		Positive	
1283		1	2		++++	Secondary stage of lues at 4th mo. of preg. Inefficient treat- ment. Prem. labor at 8½ mo.	2240	Premature but apparently nor- mal.	—	Remained well.		(1)	4	Neg.		Positive	
1292					++++	Secondary stage of lues at 7th mo. of preg. Not treated. Full term labor.	2875	Apparently normal.	—	Syphilitic eruption and Wass. +++ at 4th mo.		(4)	7	Neg.		Positive	
1296	1			2	+	No history of lues. Not treat- ed. Full term labor.	3493	Apparently normal.	—	Remained well.		(4)	3	Neg.		Positive	
1298					—	No history of lues. Full term labor. Wassermann after la- bor also negative.	3820	Meningocele and club-foot.	—	Remained well. Wassermann neg. at 4th mo.		(4)	4	Neg.		Positive	
1299					—	No history of lues. Full term labor.	2760	Apparently normal.	—	Remained well. Wass. negative at 6th week.		(4)	5	Neg.		Positive	
1335				1	++++	History suggestive of lues. Premature labor.		Still-born macerated.			Positive	(4)	3	Neg.		Positive	
1337					++++	No history of lues. Full term labor.	3580	Apparently normal.	++++	Neo-salvarsan inj. Well at 6th wk. Wass. + at 4th wk		(3)	3	Neg.	1	Neg.	Positive
1386	4	1	1		++++	No definite history of lues. Full term labor.	2625	Apparently normal.	—	Remained well.		(1)	1	Neg.	1	Neg.	Positive
1403					++++	History of lues. Full term labor.	2445	Apparently normal.	—	Remained well. Treated by Inunc- tions.		(4)	1	Neg.	1	Neg.	Positive
1405					++++	No history of lues. Prema- ture labor.	2676	Apparently normal.	+	Remained well.		(4)	1	Neg.		Positive	

demonstrated, if at all, only after a prolonged search. The time required for such a careful study is too great to make the method applicable for routine work."

Believing that the variation in these results made it desirable to test further the value of this means of diagnosis, I examined the placenta for spirochetes in fifteen cases in which syphilis was diagnosed either by the histologic appearance of the placenta or by the clinical evidences. The histologic diagnosis on the placenta has been entered, in the table, by number as follows: 1, normal placenta, 2, placenta showing fibrosis, sclerosis, or obliterative changes to a slight degree but within normal limits, 3, placenta showing the same changes, more marked, with more cellularity and crowding of villi, 4, placenta showing definite interstitial chorionitis, positively syphilitic.

Preparation and Technic.—Immediately after the expulsion of the placenta, a small piece about 2 cm. square through the entire thickness of the placenta was cut away and fixed at once in 10 per cent. formalin. In three cases a small piece of cord taken from the umbilical end was also similarly fixed.

After fixation for several days or more, small pieces averaging $\frac{1}{2}$ cm. square, were cut from these specimens and placed in 96 per cent. alcohol for twenty-four hours, 2, transferred to distilled water for one hour, 3, transferred to 2 per cent. silver nitrate solution in dark bottles and kept in incubator at 37° C. for three days, 4, washed in distilled water for two hours with one change, 5, put in solution of pyrogallie acid (16 grms.) water (400 c.c.) and 40 per cent. formol (20 c.c.) for two days, 6, washed in distilled water one hour, 7, 96 per cent. alcohol twenty-two hours, 8, absolute alcohol twenty-two hours, 9, xylol one hour with one change, 10, paraffin sixteen hours, 11, imbedded, blocked and sectioned 3-5 microns thick, fixed to slide, paraffin removed, and mounted in balsam. Examination was made under oil immersion lens, going over each section systematically with mechanical stage. With each set of tissues a piece of known syphilitic fetal liver was treated by the same technic as a control on the method.

In the following table giving data and results, +++ and ++ indicate syphilis, ++ strongly suggestive; + suggestive; and † slightly suggestive. Babies, who remained well, remained so up to time of discharge from the Hospital, usually at the sixth week. Subsequent condition could not be followed.

It will be seen from the table that although the spirochetes were readily demonstrated in the controls, in no case could they be found in suspected cord or placental tissue on repeated examinations. In two of the cases the fetal liver was found to contain numerous organisms, easily demonstrated.

In view of these results it would seem to be futile to attempt to diagnose syphilis by the demonstration of spirochetes in the placenta by the Levaditi method. The examination of the fetal liver in a suspected case, coming to autopsy, offers a much greater chance of success, and should be made use of as a practical method.

REFERENCES.

1. Bartholomew, R. A. Syphilis as a Complication of Pregnancy, *Jour. Mich. State Medical Society*, June, 1915.
2. Davis, E. P. *American Journal of Obstetrics*, May, 1916, Vol. 73.
3. Pauli, W. O. *Bull. Johns Hopkins' Hospital*, Vol. 19. p. 326-328.
4. Plass, E. D. *American Journal of Obstetrics*, 1916, Vol. 74. p. 561-577.

DISCUSSION.

DR. LESLIE L. BOTTSFORD: I haven't anything to add to Dr. Bartholomew's paper from the microscopic standpoint. According to most men the placenta offers a macroscopic diagnosis of lues; that is, a typical syphilitic placenta is supposed to be much larger and heavier than a normal placenta, the latter approaching one-sixth of the body weight of the fetus. The syphilitic placenta should weigh from one-fifth to one-quarter or one-third of the fetal weight. In all our cases here we have seldom seen a typical syphilitic placenta either in size or appearance. The syphilitic placenta is said to be lighter in color, pinkish, with a rather greasy gray appearance.

DR. UDO J. WILE: The negative results of Dr. Bartholomew and of other investigators seem to me to throw considerable doubt upon the theory of those who favor the maternal source of infection in all cases of so-called hereditary syphilis. Those who adhere to this theory believe that the placenta is syphilized from the mother and acts as a giant chancre and so syphilizes the product of conception. The fact that most of the syphilitic changes are on the fetal side and not on the maternal side, and the fact that so many of the investigations such as Dr. Bartholomew has undertaken are entirely negative, seem to me to be very much against that view and to point at least in some cases to a paternal source of infection.

DR. CARL D. CAMP: I would like to ask Dr. Bartholomew how the Wassermann reaction and the blood from the placenta compared with the report of the histologic condition of the placenta. As I

understand it, he found spirochetes in no case. I was wondering if the Wassermann reaction was sometimes positive

DR. WILE: In connection with the point that Dr. Camp and I brought up, the explanation of positive Wassermann reactions in mothers who have given birth to syphilitic children and in whom there has never been a history of syphilis from the standpoint of clinical symptoms or signs, it is not at all impossible that there has been a filtration of complement binding substances through the placenta into the maternal blood from the infection if one can reconcile the paternal source of infection as occurring. It is an undeniable fact that most of the mothers who give birth to syphilitic children have never had active manifestations of syphilis brought to their attention and the interpretation of that was the basis of the Colle's law that a mother who gave birth to a syphilitic child could suckle that child with impunity whereas the child would infect a wet nurse who has never had syphilis. It seems to me that that clinical fact, together with these findings, is very suggestive that the complement fixation test in mothers who have borne syphilitic children in some cases may be due to a filtration of the lipid substances through the placenta from the fetus.

DR. CAMP: How did Dr. Warthin's report compare with the Wassermann?

DR. BARTHOLOMEW: It was more frequently positive than the Wassermann. That is a point of dispute between our department and Dr. Warthin's department. He holds that these cases are truly syphilitic; that some time in the future they will develop the manifestations of lues. We have many cases in which there is no clinical evidence of lues whatever, Wassermann's negative on the mother and child, nevertheless the placenta comes back as typically syphilitic. During the entire time that the child is in the Hospital, to all appearance it is as healthy and normal as any child. It is full term, in fact, we have nothing against it except syphilitic placenta, and it was to prove that these placentae were syphilitic that I undertook to demonstrate spirochetes.

CATARACT DELIRIUMS. A COMPLETE REPORT OF THE CASES OF CATARACT DELIRIUM OCCURRING IN THE OPHTHALMOLOGIC CLINIC OF THE UNIVERSITY OF MICHIGAN BETWEEN THE YEARS 1904 AND 1917.

MORTON E. BROWNELL, M.D.

(From the Clinic of Ophthalmology, University Hospital, Ann Arbor, Michigan.)

The literature as regards deliriums following cataract extractions is not very full. Practically nothing has been written in English on this subject, so important from the standpoint of an ophthalmologist, except a paper published

in the *Journal of the American Medical Association* of Sept. 27, 1913 and written by Dr. Walter R. Parker. This paper takes up eleven cases seen in this clinic and is the only reference in English on post-cataract extraction deliriums to be found in the literature.

The subject receives little note in the American Encyclopedia of Ophthalmology now being published. The substance of this reference is that the prognosis for life is usually bad when the delirium occurs. Our records, however, would tend to show that such is not the case.

Sherzog in 1842 reported a psychosis occurring after eye operations and Sichel in 1863 reported seven or eight cases of a peculiar delirium following cataract operations. The cases of the latter were all typical cataract deliriums as we recognize them and occurred in patients over sixty years of age. He attributes the delirium to homesickness and the bandaging of the eyes.

Arlt in 1874 advocated the uncovering of the unoperated eye when a cataract patient became restless before the fourth day, mentioning the fact that "in old people, much run down, timid and nervous, mental disturbances may occur the first few days after the operation."

Psychiatry throws no light on the subject except to say that the deliriums are usually a manifestation of senile dementia, often on an alcoholic basis. No classification, however, is made from a psychiatric standpoint.

Burr in the *Journal of the American Medical Association* of December 11, 1911, says that the transitory delirium following operations rarely occurs in the aged without the presence of severe arteriosclerosis and marked disease of the kidneys. He thinks that the delirium is not due to the arteriosclerosis but to poisons carried to the brain in the circulation. Others ascribe post-operative deliriums to the trauma incident to operations, the cutting of nerves, etc.

Deliriums are often reported occurring after other operations and gynecologists and surgeons are continually reporting deliriums occurring in their clinics. The literature is replete with theories and discussions as to the etiology of postoperative deliriums but no definite basis has been accepted.

Englehardt well sums up the whole situation when he draws the following conclusions from his observations: First, that postoperative psychosis occurs in individuals predisposed by heredity, chronic intoxication, grief or care; second, that the weakness incident to the opera-

tion or disease preceding can hardly be considered essential, at the most it may be considered as the determining factor in predisposed cases; and, third, that there are cases of postoperative psychosis in which an etiologic understanding is not yet acceptable.

From the findings in this Clinic alone we claim the following etiologic factors:

The first and most important factor in the causation of postcataract extraction deliriums is the age of the patient. Of the thirty patients having deliriums among the 962 cases from which this report is compiled, the youngest male was 51 and the youngest female 62 years of age. The average age of the males, twenty-four in number, was 72 and the average age of the females, six in number, was $73\frac{1}{3}$ years. The average age for both sexes, then, was approximately $72\frac{1}{3}$ years while the average age of the patients not having deliriums was less than 70 years.

Males are much more prone to this condition than females as 3.9 per cent. of the 610 males operated upon had deliriums while but 1.7 per cent. of the 352 females had them.

The influence of alcohol, whether taken in moderation or in extreme is shown by the fact that 36.6 per cent. of those having deliriums drank to a greater or less extent.

That syphilis apparently plays no part in the etiology is shown by the fact that so far as our records go there were no positive Wassermanns in any of our cases.

Every patient except two was American born.

Some of our worst cases were in patients of a naturally suspicious or childish disposition. Many, indeed, were diagnosed as potential cataract deliriums when they first appeared in the Clinic. One who is continually associated with cataract patients can usually tell just which patients need the most watching.

The extrinsic factors causing deliriums are numerous. Old people placed in a dark, strange room with a stranger to take care of them before they have recovered from the strain of the operation and the anticipation which is even harder, if they have any tendency towards delirium stand a much greater chance of showing it than under normal circumstances. Care of the emunctories is essential to the comfort of the patient and some deliriums appear to have been precipitated by allowing the patient to suffer an unnecessarily long time with a full bladder.

With the eyes bandaged little noises are magnified into loud ones, quick movements or un-

sympathetic handling of the patients, making them uncomfortable or unhappy may destroy their balance completely. Loud talking, whispering and laughing may cause the development of ideas of persecution and hallucinations. Making a patient take a medicine he doesn't want or refusing him some simple comfort has the same tendency. In fact almost anything in the way of a disturbance or inconvenience may be the basis of a severe delirium.

The symptoms of cataract delirium are simple and should never be missed by the veriest young nurse. The main cardinal signs which should always be watched for are increased irritability, restlessness, slight irrationalities of speech, purposeless movements of the hands, and incoherence.

These symptoms gradually increase in intensity or in very mild and often undiagnosed cases may be the only evidence of mental unbalance. In the more severe cases the symptoms begin usually at night on the second day after operation. They may begin the day of the operation or a week or so later but the average case develops within two or three days and usually at night. From mere restlessness the patient gradually goes on to complete or nearly complete disorientation. This is present in all degrees and even in the same case varies within a few hours or minutes. They are disoriented for time, place and person. Half our patients were completely disoriented during the course of their delirium and most of the others were partially disoriented.

Ideas of persecution develop with the disorientation and various auditory and visual hallucinations. The patient may become maniacal because of these and attempt to jump out of a window or fight those in attendance.

Some of these attacks resemble more a typical delirium tremens and in these an alcoholic history is always found.

Associated delusions and illusions are very common. In some cases the patient never recovers from these and may still be disoriented and irrational at discharge some days or even weeks later.

The average delirium lasts from one to two days, although some last but a few minutes and some last for weeks.

One patient had a cerebroarteriosclerotic attack following an active delirium. When his arteriosclerotic attack had subsided somewhat he regained his normal mental balance.

The treatment of a cataract delirium varies greatly with the individual case and it is im-

possible to lay down a specific course of treatment. The drugs most effectively used in controlling these patients are those of the hypnotic group rather than the opiates. It has been the experience of those in the Clinic that morphine, codeine, and others of that group have little or no effect on the delirium while the hypnotics such as veronal, trional, chloral, chloretone and others have been used with a reasonable measure of success.

For a considerable length of time bromides were given routinely to all cataract patients in an attempt to avert attacks of postoperative delirium, but this measure was of doubtful value and has been discontinued.

The most efficacious prophylactic measure that has been adopted is the requiring of special nurses for all cataract cases. Under careful and skillful nursing many cases which would have developed a delirium have run a normal course. Care for the comfort of the patient is then considered the first prophylactic measure. The patient is kept in a dark room and as quiet a room as possible with the facilities we have at hand.

When the delirium is first noted hypnotics such as veronal or trional grs. X are administered in the hope of averting the attack. This is very often all that is necessary. Sometimes

this dose is repeated. In case the patient becomes very unruly and refuses to take drugs by mouth we give 1/200 of hyoscine hypodermatically and after waiting forty-five minutes repeat the dose if necessary. This usually will control all but the very severe attacks.

A measure that very often helps a great deal is to remove the pad from the unoperated eye and this is usually one of the first steps taken. If the anterior chamber of the eye is formed the patient is sometimes allowed to sit up in bed or even to get out of bed. The patient is reassured in every way possible and if necessary forcibly restrained.

One of the first investigations is as to the amount of urine the patient has passed since the operation and catheterization is sometimes the means of stopping a threatened delirium.

Chloretone grs. V or X by rectum is resorted to in very severe cases.

In giving hyoscine we always watch carefully for signs of an idiosyncrasy as one of our patients who had an idiosyncrasy for the drug taught us a valuable lesson in that line.

The following tables will show the age, sex, occurrence of the delirium, character of the delirium and method of control in the thirty cases from which this report is made.

	NO.	AGE & SEX	HABITS	TIME	CHARACTER OF DELIRIUM.	HOW CONTROLLED.
I.	7769	76 F.		2nd night.	Hallucinations-auditory and visual. Delusions.	
II.	6496	78 M.		2nd day.	Disoriented for time and place-delusions. Lasted two days.	Hyoscine 1/200.
III.	5788	68 M.	Beer drinker	2nd night.	Irrational-disoriented for time, place and person. Ideas of persecution.	Hyoscine 1/100. Bromides grs. XV every 3 hrs.
IV.	5876	68 M.		2nd night	Talkative-disoriented for time, place and person. Visual hallucinations. Ideas of persecution. Lasted 3 days.	Hyoscine 1/100. Pad removed from good eye.
V.	4345	78 M.	Moderate.	1st night.	Visual and auditory hallucination. Patient developed a temp. and became more delirious. Diagnosed as senile dementia on an alcoholic basis by Dr. Barrett.	Morphine ¼. Pad removed from unoperated eye.
VI.	2126	72 M.		3rd night.	Disoriented for time and for place. Visual and auditory hallucinations. Talkative.	
VII.	746	75 F.		2nd night.	Restless and confused. Incoherent. Emotional.	Amenable to suggestion. Veronal grs. V.
VIII.	719	75 M.		3rd night.	Mild delirium. Slightly disoriented for time, place and person.	
IX.	706	80 M.	Moderate.	2nd night.	Restless at first. Then delusions and visual hallucinations. Uncontrollable. Incoherent. Completely disoriented.	Hyoscine 1/100. Veronal grs. V. Little effect from either.
X.	8/12/10	77 M.		2nd night.	Delirium increasing in intensity and lasting over a week.	
XI.	12/7/09	62 F.		3rd day.	Fairly well oriented. Suspicious. Ideas of persecution. Talkative. Senile.	
XII.	6/14/09	80 M.	Chronic Alcoholic	3rd day.	Patient threatened to have delirium tremens.	Averted by moderate doses of whiskey.
XIII.	10027	77 M.	Heavy drinker.	2nd day.	Increasing delirium lasting 1 day. Probably delirium tremens.	Trional grs. X and bromides in large doses. Large doses of whiskey.

	NO.	AGE & SEX	HABITS	TIME	CHARACTER OF DELIRIUM	HOW CONTROLLED
XIV.	10104	68 M.		2nd day.	Nervous and irritable at start. Next morning was wildly delirious.	Veronal grs. X. Morph. $\frac{1}{4}$ Hyoscine 1/100. Morph. $\frac{1}{8}$.
XV.	9534	72 M.		2nd night.	Restless, disoriented for time and place. Delusions. Hallucinations of simple nature.	Veronal. Hyoscine.
XVI.	9386	73 M.		2nd day.	Unruly and actively delirious. Childish and mentally unbalanced before operation. Ideas of persecution and auditory and visual hallucinations. Illusions. Delirious for two days and still somewhat disoriented at discharge.	Hyoscine 1/100. Morph. $\frac{1}{8}$. Veronal grs. X.
XVII.	9490	52 M.		3rd day.	Disoriented completely. Ideas of persecution. Quieted at first but later became wildly delirious with delusions and hallucinations. Strong ideas of persecution caused him to attempt to jump from the window. Next morning had a cerebro-arterio-sclerotic attack after which he was confused in speech and very weak but well oriented.	Veronal grs. X. Large doses of bromides.
XVIII.	8927	51 M.	Moderate drinker.		Patient being an alcoholic developed signs of psychosis being extremely restless with a tendency towards the irrational.	Given whiskey egg nog 4 times a day and improved within a few hours.
XIX.	11755	65 M.	Moderate.	4th day.	Increasing delirium. Ideas of persecution. Disoriented for time and place but not completely for person. Lasted two days.	Sod. bromide grs. XV q. 4 hours. Hyoscine 1/200. Trional grs. X 3 times.
XX.	11448	85 M.		1st night.	Showed mental changes becoming more and more irrational. Not hard to control at first but completely disoriented with delusions and hallucinations—auditory and visual. Next morning became wildly delirious and excited. Ideas of persecution and vague hallucinations. From then on the patient never recovered his right mind except at rare intervals and only for a short time. Was disoriented for place and time but not entirely for person. Vague ideas of persecution until discharged and continuing until his death a month later.	Trional grs. XX. Hyoscine 1/200. Catheter Sod. bromide grs. XV q. 4 hrs.
XXI.	10530	66 M.		2nd night.	Slightly delirious, disoriented for place. Easily controlled.	Bromides. Trional.
XXII.	10786	64 M.	Moderate.	4th day.	Slight delirium. Irritable. Ideas of persecution. Disoriented for time.	Hyoscine 1/100. Bromides.
XXIII.	2/25/09	81 M.		2nd night.	Slight delirium. Easily controlled.	Pad removed from unoperated eye. Propped up.
XXIV.	4/28/09	82 F.		1st night.	Irritable-restless. Flight of ideas. Completely disoriented.	Pad removed from unoperated eye. Given codeine.
XXV.	4/16/08	75 F.		2nd night.	Wildly delirious. Hard to control. Increasing delirium. Discharged against advice and before reason had returned.	Partially controlled by morph. $\frac{1}{8}$.
XXVI.	9049	76 M.	Moderate.	2nd night.	Restlessness increasing to wild delirium with ideas of persecution and completely disoriented. Talkative. Tried to jump out of window. Lasted two days.	Hyoscine 1/100. Morph. $\frac{1}{4}$. Pad removed from unoperated eye. Chlorotone grs. XV by rectum.
XXVII.	9742	72 M.	Moderate.	4th night.	Active delirium. Ideas of persecution, delusions. Lasted 5 days. Disoriented for time and place.	Veronal. Hyoscine. Morphine.
XXVIII.	10178	71 M.	Periodic drinker.	2nd night.	Completely disoriented. Ideas of persecution. Naturally bad disposition.	Hyoscine.
XXIX.	8291	79 M.		2nd night.	Unruly. Disoriented completely. Ideas of persecution. Patient had an idiosyncrasy for hyoscine.	Hyoscine 1/200.
XXX.	8256	70 F.		12th day.	Began to show mental disturbance. Ideas of persecution. Auditory hallucinations. Still mentally unbalanced at discharge.	Moved into a light place and reassured. Little effect.

Above lists include all cases prior to February, 1917.
Totals.

Males 24. Per cent. of males having delirium, 3.9%. Per cent. of both sexes having delirium, 3.1%
Females 6. Per cent. of females having delirium, 1.7%.

Alcoholics 11 or 36.6%.

Youngest male, 51. Youngest female, 62. Oldest male, 81. Oldest female, 82.

Average age of males, 72 years. Average age of both sexes, 72 $\frac{4}{15}$ years.

Average age of females, 73 $\frac{1}{2}$ years.

Average length of time after operation before development of delirium, 2 to 3 days.

Average length of duration of delirium, 1 to 2 days.

The prognosis as regards the eye operated upon is usually not affected by the occurrence of a delirium as in only one case in our series of thirty deliriums was the eye definitely injured as a result of trauma caused by the patient while he was delirious.

The prognosis as regards the immediate health of the patient is also fairly good as in only one case did death occur before discharge and while the patient was still delirious. This patient died of an intercurrent pneumonia.

As before stated the American Encyclopedia of Ophthalmology states that the prognosis for life is very poor when a postcataract extraction delirium occurs, but in our whole series there are only three deaths, immediate or remote, on record and only two of these patients died in a delirious condition never recovering their mental balance. The other to die in this condition was an old physician who had had attacks of senile dementia previous to his entrance to the hospital.

The third was that of a heavy drinker and his delirium was more of an alcoholic psychosis.

SUMMARY.

The following essential facts may be extracted from this paper:

1. Deliriums occurred in 3.1 per cent. of the 962 cases operated upon.
2. The average age of the patients having deliriums was $72\frac{1}{3}$ years while the average age of those having senile cataracts was between 60 and 70.
3. Thirty-six and six-tenths per cent. of our cases were alcoholics.
4. In no case in our series did the urine indicate a nephritis.
5. Hypnotics are the most effective drugs in controlling these patients.
6. The prognosis as regards the health or the vision of the patient is usually not affected by the occurrence of a delirium.

Despite the fact that kidney disturbance is said to be necessary in the development of post-operative deliriums we could find no cases in our records which had albumin, casts, or sugar in the urine.

DISCUSSION.

DR. ALBERT M. BARRETT: It would be very interesting to know how many if those patients showed signs of mental abnormalities before the operation. It is generally supposed that we are dealing in these conditions with the so-called dark room delirium. We see it sometimes in prisoners who are alcoholics incarcerated in a dark cell, and in certain other persons who show signs of mental abnormalities.

I should be interested to know how many of these patients develop later senile dementia, as we know they often do.

DR. GRADY E. CLAY: There is very little to add to Dr. Brownell's paper. Cataract delirium in most of the various textbooks is scarcely mentioned. It is certainly a very common condition and should receive a most prominent place in postoperative treatment. During the past year we have used special nurses on all cataract cases and there has been a decided drop in the number of cataract deliriums in our Clinic.

DR. CARL D. CAMP: It would seem to me that the statement of Dr. Brownell that the hypnotics had better effect than narcotics might cast a light upon the etiology. We find that the psychoneuroses are not favorably influenced by the use of morphine, in fact they are decidedly unfavorably influenced and they are much better treated by hypnotics. I would like to suggest that he might try valerian in this connection and also the prolonged warm bath.

DR. BROWNELL: In regard to Dr. Barrett's statement, I would say that at least half of our patients when they came in were suspected of being potential cataract deliriums and showed a predisposition for it. I have no accurate figures on this point, but I don't think that there is any question but that half of our cataract deliriums are diagnosed before they go to operation.

Treatment with valerianate and hot bath has never been tried in our cases. Some of the patients are so wild that I doubt if valerianate would have any effect, but in some of the milder cases it might be tried.

REPORT OF A CASE OF BALANCE PTOSIS.

WILLIAM S. GONNE, B.S.

(From the Neurologic Clinic, University Hospital, Ann Arbor, Michigan.)

The case, which I am about to present, is one showing a peculiar type of ptosis of the left eyelid and described in the Italian literature as "Ptosi Bilancia." This is of interest; first, on account of the rarity of this condition, no cases having been reported in the German, French or English literature; second, the diagnostic value of the symptom; and third, because of the physiologic problem which it presents.

This patient, age 41 years, a salesman, entered the Neurologic Clinic on January 20, 1917. At that time he complained of difficulty in walking, difficulty in the use of his hands, disturbance of vision and pain in the abdomen. His family history is practically negative. He has been married nineteen years and has two children, a boy and a girl, age 15 and 17 years, respectively. His wife is living and well and

there is no history of miscarriages. The patient had typhoid at 16, the ordinary diseases of childhood and an operation for hernia in 1898. He says he did not have the present trouble at that time. He does not drink but smokes moderately. He had gonorrhea in 1908, but he never has had a skin eruption and denies knowledge of syphilitic infection. He gives no history of an injury except that he cut his right wrist in 1904 by falling on broken glass.

Present Illness.—The patient says that he had no signs of the present trouble until June 1st, 1916 when he complained of diplopia and pain in the back. He was treated by a physician for lumbago and stomach trouble until August 10th. During this time he was becoming progressively weaker, developing difficulty in walking, numbness in the toes and then numbness in the hands and fingers. The numbness gradually crept up his body and affected the left side of his face. His vision became so poor that he could not read even with reading glasses. He says that strabismus was first noticed by his friends about August 20th. His case was diagnosed as tabes and he took his first treatment of salvarsan, intravenously, on August 21, 1916. He took two more treatments at intervals of two weeks until he had had three treatments. Between the first and second treatment the dull ache which he had in his legs changed to sharp, shooting pains accompanied by similar pains in other parts of his body. His weakness was becoming worse and his vision was not improved. He took the second injection of salvarsan at 10 A. M., Sept. 4, and about 11:30, while riding in an automobile from the doctor's office to that of an optician's, he suddenly developed ptosis of the left eyelid. He could not open his eye to have glasses fitted except by holding it open. When he reached home that evening he noticed that if he closed the right eye he could open the left, but with the right eye open he could not open the left. When he opened his left eye he says he had a feeling of dizziness and pressure sensation in the abdomen. The following week he had a great deal of trouble with his stomach, pain in the abdomen, retention of urine, constipation and loss of vision. At this time he walked with two canes. He was catheterized daily for ten days. He took his third treatment of salvarsan two weeks after the second and three or four days after this treatment he started to treat himself by taking very hot baths. From that time his general condition gradually improved and he was able to get about in three

weeks, but his eye condition remained unchanged. He says he had never had blood taken for examination and no spinal puncture until he entered the Hospital.

Examination on admission to the Hospital by Dr. Camp showed that the patient was a somewhat spare individual who replied promptly to questions and seemed to be mentally normal except for some slight confusion and memory disturbance, though the latter was not appreciated by the patient. He could walk without a cane, though his gait was staggering. When both eyes were closed his gait was more ataxic and staggering. There was a ptosis of the left eye and the left eyeball showed a slight divergent strabismus. The inward rotation of the left eyeball was impaired, but other extraocular movements of both eyes were normal. Convergence in both eyes was normal. The right pupil reacted promptly to light, the left sluggishly. When he closed the right eye the left upper lid raised without effort and the eye was opened to almost the full extent. With the right eye opened the left could not be raised at all. There was no facial palsy or asymmetry and the tongue was protruded straight and showed no atrophy. There was some ataxia in the use of both hands. There was atrophy of the thenar eminence and small muscles of the right hand and the little finger of the right hand was contracted in flexion. There was numbness in the distribution of the ulnar nerve but this atrophy and sensory disturbance was probably accounted for by an injury to the right ulnar nerve just above the wrist joint. There was no atrophy nor deformity of the left hand. The biceps and triceps, knee and Achilles reflexes were absent on both sides. Plantar irritation caused no movement of the toes on the left side, but normal flexion on the right side. The tendo Achilles were normally tender to pressure and there was no objective sensory disturbance in the feet, either tactile or pain. There was no loss of sense of motion or position of the toes and no atrophy nor deformity of the feet. The umbilical reflex was present on both sides, but the cremasteric reflex was absent.

The physical condition was good and the examination of the heart and lungs was negative. An examination of the abdomen showed an inguinal hernia on the right side, but the X-ray examination of the gastrointestinal tract showed no interference with function. The examination of the blood showed 6,120,000 red blood cells per cmm., 8,000 leucocytes per cmm., 90 per cent. hemoglobin. The blood pressure was

130 systolic and 95 diastolic. The Wassermann reaction on the blood was negative. An examination of the urine was negative. An X-ray examination of the skull showed no pathologic condition. A lumbar puncture was done on his admission. The spinal fluid was clear and colorless and under normal pressure. It showed 115 lymphocytes per cmm. The carbolic reaction of Pandy was strongly positive. Nonne-Apelt, Phases I and II were slightly positive. Reducing substance was present. The Wassermann reaction was strongly positive. A second lumbar puncture was done February 20, 1917. The findings were practically the same. The Wassermann reaction was strongly positive. He was examined in the Department of Ophthalmology (Dr. Parker) February 1st, 1917 with the report of "Partial loss of power of all extrinsic muscles in the left eye supplied by the third nerve, most marked in the internal rectus. Also slight loss of power in the right internal rectus. Partial ptosis in the left eye. Well marked disseminated choroiditis probably specific."

The patient had an injection of mercury succinimid, grain $\frac{1}{2}$ on January 28th and daily thereafter and he was able to raise the left lid about five days later. He has continued to improve since then until at present there is only a barely perceptible ptosis in the left eye and in all other respects his eyes are negative. The tendon reflexes are still lost. He has an ataxic gait which is made worse by closing the eyes, though not made worse by closing either eye alone. He has no pains of any kind at the present time.

In résumé we would say that this case shows incomplete paralysis of the left third cranial nerve, manifesting itself as balance ptosis together with other neurologic symptoms of syphilis of the nervous system and positive findings in the spinal fluid. This is quite similar to the case of "Ptosis Bilancia" reported by Artom in II *Polyclinico Practica*, 1913. The diagnosis of syphilitic basilar meningitis was made by Artom by a process of exclusion.

There were also three cases reported by Pacetti as tabes paresis and taboparesis in which there was inability to raise one eyelid when the other was open, but it could be raised when the other lid was closed. In no case of this kind has there been reported, heretofore, an examination of the spinal fluid.

This peculiar type of ptosis may be explained as a sign of syphilis of the central nervous system. It may be thought to be due to the reflex

action on the part of the patient to prevent diplopia, but one objection to this latter view is that in a reflex closure of the eye there is a spasm of the orbicularis palpebrarum which is not supplied by the third nerve, but by the facial. There was no indication of facial spasm in this case. Another objection is that although diplopia is common, a balance ptosis is extremely rare. The pathogenesis of this symptom and its bearing on our knowledge of the associated ocular movements is to be taken up in another paper.

DISCUSSION.

DR. GRADY E. CLAY: I do not know just what is meant by balance ptosis. This interesting case shows a definite partial paralysis of the third nerve supplying the muscles of the right eye and the reason that this patient is able to raise the right lid when the left eye is closed is explained by the fact that an increase of nerve supply is sent to the partially paralyzed levator. The loss of vision in this case is due to the specific choroiditis.

DR. CARL D. CAMP: The case interests me a great deal. Dr. Clay's explanation, it seems to me, is a perfectly reasonable one, in fact, was the original explanation of Pacetti, that is, that there was deficient innervation to the left oculomotor nucleus, and unless the right eyelid was dropped so that all the innervation possible could get to the left oculomotor nucleus, the patient was unable to raise the left eyelid. Of course, that involves a theory of the relations of the oculomotor nuclei which is not altogether clear. The extreme rarity of this condition is, I think, very well attested. There is practically no mention of it in the literature, and yet it is such a striking phenomenon that one would think that if cases of this kind had occurred, they surely would have been reported in the literature. There is no mention of such a condition for instance in the large system of Wilbränd and Sängner on the neurology of the eyes.

MR. WILLIAM S. GONNE: In looking up a little on the physiology of this phenomenon, I discovered a variety of opinions upon the structure and function of the third nerve nucleus and I imagine it is going to be a very interesting subject to work up.

UTERINE FIBROMYOMATA COMPLICATING PREGNANCY; WITH THE REPORT OF A CASE.

LESLIE L. BOTTSFORD, M.D.

(From the Clinic of Obstetrics and Gynecology, University Hospital, Ann Arbor, Michigan.)

Uterine fibromyomata are in a large percentage of cases associated with sterility. They may, but rarely do, cause disturbance during pregnancy, labor or the puerperium. In large series from the maternity clinics fibroids are

found in from .7 to 1 per cent. of cases, yet they require interference in less than .02 per cent.

During pregnancy fibroids increase rapidly in size, due to the greatly increased vascularity of the pelvis. They may cause abortion, overdistension of the abdomen from rapid growth, pain, fever, and peritonitic symptoms from necrosis, incarceration, twisting of the pedicle, or other degenerative changes.

During labor fibroids remaining incarcerated in the pelvis (particularly pedunculated, intraligamentous, cervical, or adherent types) produce dystocia. Fundal growths cause no difficulty as a rule. Those of the intermediate zone are usually drawn out of the pelvis by the retracting musculature. Malpositions, and malpresentations are, however, fairly common, and placenta previa is unusually frequent.

Complications of the third stage of labor are common, namely, hemorrhage from poor retraction of the uterus, or adherent placenta.

During the puerperium fibroids may obstruct the lochial flow; they always delay involution; they predispose to thrombophlebitis, and may become infected and necrotic from the injury and bruising incident to delivery.

Of late years the cases are neither so frequent nor so formidable because most of the tumors are removed when first discovered, and further, better aseptic treatment is given at the time of labor.

The following case has been recently under observation in the Gynecological Clinic:

Miss S., age 30, entered the Hospital February 19th, 1917. Her complaint was a tumor mass in the abdomen associated with pregnancy. Her last menstrual period was July 30th, 1916, and she felt fetal movements about December 10th. The tumor was first noticed by the patient in May, 1915, as a small, round, movable mass in the left lower abdomen which disappeared, when she would lie on her left side, or back. Otherwise she was healthy in every respect, and her menstrual history was normal. The mass grew slowly until she was two months in her pregnancy, and at that time seemed about the size of an orange, and was somewhat irregular. From that time the growth rapidly increased in size, and on admission was found to occupy practically the entire left half of the abdomen, and extended from the pubis to beneath the left costal margin. The upper border of the growth was distinctly notched and it had a uniformly firm hard feel. It was apparently movable, but not freely so, due to its size, and

also to the presence of a seven months pregnant uterus which was displaced to the right side of the abdomen. Upon vaginal examination the tumor mass could be felt occupying the left side of the pelvis, and could be displaced upward but very slightly. Thus far during her pregnancy the patient had enjoyed good health, and had had no unusual symptoms except for several severe, sharp pains in her right lower quadrant, two weeks previous. Physical examination was also negative in all other respects.

In making a differential diagnosis of an abdominal tumor in pregnancy, one must consider all possibilities, namely, tumors of splenic, renal, ovarian and uterine origin in particular, as well as other more rare intraabdominal growths. Here, the history was suggestive of pelvic growth and our diagnosis lay between pedunculated uterine fibroid and fibroid of the ovary. By careful blood, urine, and X-ray examination of the kidney we ruled out, as well as one may, the other possibilities. The growth simulated an ovarian fibroid greatly in its consistency, kidney shape outline and movability.

Where one is dealing with a complication of pregnancy of this type, there are two main possibilities of treatment. From its size and location in the pelvis, with the accompanying displacement of the fetus to the right side of pelvis and abdomen, dystocia at time of labor could be definitely prognosticated. Also complications prior to labor were quite possible. The treatment for these reasons was fairly well defined; first, immediate removal of the mass by laparotomy, with as little trauma to the pregnant uterus as possible, and allowing pregnancy to continue; or, secondly, to allow pregnancy to continue further toward term in the interest of the fetus, and then do a classical Cesarean, followed by the removal of the mass. In case of proper indication a Porro operation might have been done.

The first line of treatment seemed the most conservative, and according to Patton is the procedure of choice in such cases. The patient was operated upon March 2nd; the abdomen was opened by a high left rectus incision $7\frac{1}{2}$ inches in length, and the tumor mass was delivered with difficulty, although not adherent. It was a large solid irregular fibroid, measuring $8 \times 6 \times 4$ inches, and was attached to the anterior left aspect of the lower portion of the fundus by a large pedicle, about one-half inch in length. The uterus was, otherwise, normal. The pedicle was carefully dissected from the outer layers of the uterine wall, hemorrhage,

which was very brisk, being controlled by pressure, as the pedicle was too large to be clamped. The uterine wall was then repaired, the abdomen sponged dry of blood and closed in the usual manner. The patient was returned to bed in good condition, with a pulse rate of 120.

The following morning, although morphia had been administered systematically, she developed uterine contractions. These could not be arrested. Her labor was carefully supervised as the possibilities of rupture of the abdominal incision, or uterine wound were present. Her labor progressed normally as an occiput right anterior, and delivery was accomplished spontaneously late in the afternoon. Had there been delay in cervical dilatation, or had other untoward symptoms arisen, assistance to delivery would have been rendered. The third stage of labor was also normal, and was completed without difficulty. The child was a small, poorly

nourished, premature female weighing three and one-half pounds, and measuring 37 cm. in length, and survived for five hours. The patient is now rapidly undergoing a normal convalescence, and has had no complications.

According to the statistics, abortion or premature labor follow myomectomy in from 17 to 20 per cent. of cases. Particularly is this true when pregnancy is advanced more than five months and where the uterine wall is traumatized to any extent. Had there been a fair chance for delivery at term through the birth canal, either spontaneous or operative, with less danger to the mother, our treatment would have been otherwise. This tumor seemed too large to be displaceable out of the pelvis, either spontaneously following uterine contractions, or bimanually at time of labor, and was apparently a growth of the "galloping type" of Pozzi.

Ichthyar.—The Council on Pharmacy and Chemistry reports that Ichthyar was submitted by the Szel Import and Export Company with the claim that it was essentially similar to ichthyol in composition and superior to it in therapeutic properties. The statements that were submitted regarding its composition made it impossible to determine whether or not it was similar to or identical with ichthyol. No evidence was furnished in regard to its therapeutic value. On the basis of the available information the Council held the claims regarding composition and therapeutic value unsubstantiated and ichthyar ineligible for New and Nonofficial Remedies. (*Jour. A.M.A.*, March 10, 1917, p. 796).

Another Shortage of Salvarsan.—The indications are that the supply of salvarsan and neosalvarsan in this country has again reached the point of exhaustion. Congress, which made our patent law, has the power to suspend the patent on any preparation that the patentee is unable to, or does not supply, when such suspension is in the interest of public health, and it should suspend the salvarsan patent. In the meantime it is hoped that the Dermatologic Research Laboratory of Philadelphia will again supply the product as it did during the previous salvarsan shortage (*Jour. A.M.A.*, March 10, 1917, p. 785).

Control of Intestinal Bacteria.—A recent investigation indicates that the direct feeding of bacterial cultures of lactic acid producing organisms had almost no influence on the intestinal flora. On the other hand the administration of milk sugar (lactose) brought about a marked change in the in-

testinal flora. It appears therefore that the beneficial action of milk cultures is dependent on the lactose and not on the bacteria which they contain (*Jour. A.M.A.*, March 24, 1917, p. 918).

Betaine Hydrochloride.—It contains 23.8 per cent. absolute hydrochloric acid and 8 grains corresponds to about 18 minims of diluted hydrochloric acid. In solution betaine hydrochloride dissociates into hydrochloric acid, but it is not so efficient in aiding the action of pepsin as an equivalent amount of hydrochloric acid (*Jour. A.M.A.*, March 24, 1917, p. 931).

Active Principle of Leeches.—The principle in the buccal secretion of the leech which prevents the clotting of blood is herudin, a deuterio-albumose (*Jour. A.M.A.*, March 24, 1917, p. 931).

Paraffin Films.—The popular propaganda for "Ambrine" having brought the paraffin film treatment of burns into prominence, Torald Sollmann has instituted experiments to devise a suitable, open formula preparation which is simple and yet meets all requirements. He suggests that surgeons who desire to experiment with the paraffin treatment of burns use simple preparations of known composition. Ordinary paraffin melting at about 50 C. (122 F.) appears to possess practically the mechanical properties of "Ambrine." A mixture containing some asphaltum (asphalt varnish, Trinidad or Bermudez, "asphalt cement" and Texas asphalt were tried) gives a preparation of superior pliability. Other formulas are given and their trial suggested (*Jour. A.M.A.*, April 7, 1917, p. 1037).

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Arthur M. Hume, Chairman Owosso
 Guy L. Kiefer Detroit
 W. J. Kay Lapeer
 W. J. DuBois Grand Rapids

EDITOR

FREDERICK C. WARNSHUIS, M.D., F.A.C.S.
 Grand Rapids, Mich.

All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscription are to be addressed to Frederick C. Warnshuis, M.D., Powers Theatre Building, Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—\$3.50 per year, in advance.

June

Editorials

SPECIAL MEETING.

The full report of the special meeting of our State Society that was held in Battle Creek on May 10th will be found elsewhere in this issue. It is complete in detail and but little editorial comment is required.

It was a most splendid response and expression by our members and all doubt was dispelled as to the loyalty of Michigan doctors to their Country and Flag. The registration was larger than several of our regular annual meetings.

When President Biddle, in his address, announced:

"I want you to appreciate that those of you who go away will have the care and the guidance of this Society. I swear to you that these children shall be taken care of and everything looked after properly."

hardly an eye in the entire assembly but what a tear glistened or trickled down the cheek.

It is now incumbent upon our members to buckle down to the tasks before us. Going or staying, we all have new duties to assume. May we co-operatively achieve the tasks allotted to us.

TO OUR VOLUNTEERS.

You have responded to Our Country's Call and have rallied under its flag. You are ready to go when and wherever needed. You have already exemplified the loyalty of our profession. We salute you with deference and pride. We are assured you will return honor to our organization and justify our confidence in you.

As you go forth you carry with you the universal good wishes and Godspeed of our Society and all your fellow members. When your hour of departure arrives, when you relinquish the ties of home, friends, patients, wife, children and relatives, when you set out on a service—that will lead you to we know not where—we want you to feel and be confident that you possess the combined support of our entire membership. This Society pledges to you that during your absence it will be alert to the rendering of such protection and care to your dear ones and dependents as may be required. That they will be safe-guarded from all want and their comforts will be conserved. Their interests will ever concern us and their happiness will be our quest. We ask you to be content with this knowledge and be confident that we gladly assume this trust.

Further, we want each one of you to freely convey your wishes to the State Secretary. Wherever you may be, do not for a moment hesitate to communicate with your organization's Secretary if occasion presents when you feel that we can render service, no matter how great or small that service may be.

Your Society is back of you—it will watch over yours—Good Bye, Good Luck, God Bless You.

COUNTY PATRIOTIC COMMITTEES.

The plan adopted at our Special Meeting provides for the appointment by County Societies of a Patriotic Committee. The duties of these Committees are to familiarize themselves with the progress, comforts and circumstances of the families and dependents of members who are actively serving this country. They are to make monthly reports and to them is delegated the responsibility of protecting the interests and comforts of their fellow-members' families and to also tender from time to time such assistance as their needs may require.

These Committees are the protecting guardians of the families and dependents of our patriotic members who are serving their country. The personnel of these Committees should

be carefully selected. They must be impressed with the grave responsibilities that devolves upon them. They must exercise tact and discretion. They also must ever be alert and active.

County Societies should promptly arrange the appointment of this Committee and report the names and addresses of the members to the State Secretary in order that instructions may be sent to them. See that your local Committee is organized and on duty before the first doctor from your county leaves for active duty. Thus will he be assured that those whom he leaves behind are under the watchful and protecting care of his fellow-members.

We have assured the men going to the front that we would care for and protect their dear ones. This is our solemn promise. To keep it inviolate the Patriotic Committee must at once go on duty. See that this is done in your county.

EMERGENCY FUND ASSESSMENT.

As authorized by the House of Delegates and the General Session that adopted the plan for the Conservation of the Practices of Members Who Enter Active Service, the Financial Committee of the Council has levied an initial assessment of \$5.00 per member. The money thus acquired will be used as an Emergency Patriotic Fund to provide relief and assistance to the families and dependents of members who enter active service in the Medical Departments of the Army or Navy. The money will be disbursed by the Financial Committee upon recommendation of Local Patriotic Committees and after proper investigations.

Our members are urged to promptly pay this assessment to their County Secretaries who have been provided with blanks for forwarding their collections of this assessment. DO IT NOW.

ANNUAL MEETING.

The fall meeting has been indefinitely postponed for the present. The difficulty encountered in preparing a scientific program because of the uncertainty as to whether essayists will be in active governmental service is the principle reason for postponement. Dependent upon the trend of events, the Council will announce a future date for the holding of our annual meeting.

REGISTRATION—SPECIAL MEETING

ALPENA—

C. M. Williams, Alpena.
D. A. Cameron, Alpena.

BARRY—

F. F. Shilling, Nashville.
J. W. Rigerink, Freeport.
H. A. Adrounle, Barry.

BAY—

W. E. Tupper, Bay City.
C. H. Baker, Bay City.

BENZIE—

F. H. Stone, Beulah.
E. L. Covey, Honor.
W. P. Morrill, Benton Harbor.
H. C. Hill, Benton Harbor.
L. L. Harrison, Niles.
D. Littlejohn, Bridgman.
S. W. Barnum, Coloma.

BERRIEN—

C. N. Sowers, Benton Harbor.

BRANCH—

W. W. Williams, Bronson.
D. H. Wood, Coldwater.
R. W. Ridge, Coldwater.
W. A. Griffith, Coldwater.
P. H. Gunsallus, Bronson.
M. H. Coan, Union City.

CLINTON—

W. A. Scott, St. Johns.
W. H. Gale, St. Johns.
A. R. Coon, DeWitt.

CASS—

E. W. Tonkin, Edwardsburg.
W. C. McCutcheon, Cassopolis.
J. H. Kelsey, Cassopolis.
S. L. Lopee, Vandalia.
R. P. Jones, Marcellus.
W. R. Beardsley, Jones.

CHEBOYGAN—

W. E. Chapman, Cheboygan.

CALHOUN—

E. Van Camp, Athens.
L. H. Tower, Battle Creek.
C. E. Stewart, Battle Creek.
Carrie S. Staines, Battle Creek.
R. C. Stone, Battle Creek.
W. S. Shipp, Battle Creek.
W. B. Lewis, Battle Creek.
H. A. Shurtleff, Marshall.
R. D. Sleight, Battle Creek.
P. Roth, Battle Creek.
K. B. Rees, Bedford.
E. L. Parmeter, Albion.
F. D. Patterson, Marshall.
E. G. Norman, Battle Creek.
W. H. Niles, Marshall.
E. Miller, Battle Creek.
H. M. Lowe, Battle Creek.
L. McCaleb, Battle Creek.
A. F. Kingsley, Battle Creek.
A. S. Kimball, Battle Creek.
L. Jespersen, Battle Creek.
S. Jespersen, Battle Creek.
Chas. C. Hubly, Battle Creek.
E. C. Derickson, Burlington.
W. H. Haughey, Battle Creek.
W. Haughey, Battle Creek.
J. J. Holes, Battle Creek.
G. C. Hafford, Albion.
C. S. Gorsline, Battle Creek.
W. L. Godfrey, Battle Creek.
J. G. Gage, Battle Creek.
L. Fraser, Battle Creek.
J. A. Elliott, Battle Creek.
M. V. Dryden, Battle Creek.
J. F. Cooper, Battle Creek.
M. N. Canfield, Battle Creek.
E. M. Chauncey, Albion.
S. K. Church, Marshall.
J. T. Case, Battle Creek.
R. H. Baribean, Battle Creek.

CHARLEVOIX—

A. N. Howe, Boyne City.
A. M. Wilkinson, Charlevoix.

DICKINSON—

J. A. Crowell, Iron Mountain.

DELTA—

H. W. Long, Escanaba.

EMMET—

F. C. Witter, Petoskey.

EATON—

C. A. Stimson, Eaton Rapids.
C. S. Sackett, Charlotte.
V. J. Rickerd, Charlotte.
W. E. Newark, Charlotte.
P. H. Quick, Olivet.
E. M. McCoy, Grand Ledge.
F. J. Knight, Charlotte.
A. H. Burleson, Olivet.
F. R. Blanchard, Eaton Rapids.

ISABELLA—

Chas. D. Pullen, Mt. Pleasant.
J. H. Moseley, Weldman.

GRATIOT—

H. Moseley, Alma.
B. C. Hall, Pompeii.
C. B. Gardner, Alma.
D. H. Anderson,

GENESEE—

A. S. Wheelock, Goodrich.
W. H. Winchester, Flint.
P. E. White, Clio.
D. L. Treat, Flint.
V. H. De Somoskeoy, Flint.
E. C. Rumer, Flint.
A. J. Reynolds, Flint.
H. E. Randall, Flint.
W. C. Reld, Grand Blanc.
E. D. Rice, Flint.
C. H. O'Neil, Flint.
R. S. Morrish, Flint.
C. F. Moll, Flint.
J. G. R. Manwaring, Flint.
D. D. Knapp, Flint.
R. S. Halligan, Flint.
M. S. Knapp, Flint.
G. R. Goering, Flint.
J. W. Evers, Flint.
H. Cook, Flint.
C. D. Chapell, Flint.
C. P. Clark, Flint.
J. C. Benson, Flint.
G. H. Bahlman, Flint.
C. B. Burr, Flint.

GRAND TRAVERSE—

E. L. Thirlby, Traverse City.
L. Swanton, Traverse City.
F. P. Lawton, Traverse City.
F. Holdsworth, Traverse City.

GOGEIC—

L. O. Houghten, Bessemer.
C. D. Collins, Ironwood.

HURON—

S. B. Young, Caseville.
A. E. Yale, Pigeon.

HILLSDALE—

W. H. Sawyer, Hillsdale.
B. F. Green, Hillsdale.
H. C. Miller, Hillsdale.
C. L. Bower, Hillsdale.
W. O. Ditmars, Jonesville.
W. H. Atterbury, Litchfield.
O. G. McFarland, Montgomery.

IONIA—

J. E. Pinkham, Belding.
Joseph Johns, Ionia.
N. McLaughlin, Lake Odessa.
J. J. McCann, Ionia.
F. M. Marsh, Ionia.
V. H. Kitson, Ionia.
F. A. Hopkins, Muir.
R. H. Haskell, Ionia.

J. R. Hay, Saranac.
C. B. Gauss, Palo.
J. J. Defendorf, Ionia.
J. D. Bradfield, Portland.
E. F. Beckwith, Ionia.

INGHAM—

L. W. Toles, Lansing.
M. Shaw, Lansing.
C. H. Murphy, Lansing.
R. E. Miller, Lansing.
H. A. Miller, Lansing.
F. A. Jones, Lansing.
F. M. Huntley, Lansing.
F. J. Drolett, Lansing.
O. H. Bruegel, Lansing.
H. S. Bartholomew, Lansing.

JACKSON—

W. B. Anderson, Jackson.
R. M. Cooley, Jackson.
C. A. Clarke, Jackson.
H. D. Brown, Jackson.
C. R. Dengler, Jackson.
W. H. Enders, Jackson.
P. I. Edwards, Jackson.
J. C. Kugler, Jackson.
C. A. Leonard, Jackson.
T. E. Hackett, Jackson.
L. J. Harris, Jackson.
R. G. Hendrick, Jackson.
B. D. Marsh, Jackson.
C. D. Munro, Jackson.
J. A. McQuillan, Jackson.
H. N. T. Nichols, Jackson.
C. G. Parnall, Jackson.
E. S. Peterson, Jackson.
D. E. Robinson, Jackson.
F. L. Rose, Jackson.
G. A. Seybold, Jackson.
W. R. Snow, Jackson.
W. E. Spicer, Jackson.
C. E. Stewart, Jackson.
M. C. Strong, Jackson.
J. C. Smith, Jackson.
E. C. Taylor, Jackson.
G. E. Winter, Jackson.

KENT—

J. D. Brook, Grandville.
F. A. Boet, Grand Rapids.
B. R. Corbus, Grand Rapids.
A. M. Campbell, Grand Rapids.
L. H. Chamberlain, Grand Rapids.
W. J. DuBois, Grand Rapids.
R. W. Fuller, Grand Rapids.
F. C. Kinsey, Grand Rapids.
A. Nyland, Grand Rapids.
H. J. Pyle, Grand Rapids.
J. R. Rogers, Grand Rapids.
Perry Schurtz, Grand Rapids.
D. E. Welsh, Grand Rapids.
J. B. Whinery, Grand Rapids.
F. C. Warnshuis, Grand Rapids.

KALAMAZOO ACADEMY—

R. U. Adams, Kalamazoo.
C. E. Boys, Kalamazoo.
E. E. Brunson, Ganges.
E. T. Brunson, Ganges.
H. J. Bush, Fennville.
R. E. Balch, Kalamazoo.
L. J. Crum, Kalamazoo.
D. H. Eaton, Kalamazoo.
A. W. Crane, Kalamazoo.
J. B. Jackson, Kalamazoo.
W. N. Kenzie, Richland.
H. W. Knapp, Gaylord.
R. G. Leland, Kalamazoo.
D. P. Osborne, Kalamazoo.
H. Ostrander, Kalamazoo.
R. McNair, Kalamazoo.
Elmer D. Osmun, Allegan.
F. U. Pratt, Kalamazoo.
A. L. Robinson, Allegan.
A. H. Rockwell, Kalamazoo.
E. P. Wilbur, Kalamazoo.
G. F. Willey, Kalamazoo.
R. J. Walker, Saugatuck.

LAPEER—

J. H. Burley, Almont.
D. J. O'Brien, Lapeer.
Peter Stewart, Lapeer.
P. E. Marsh, Lapeer.
W. J. Kay, Lapeer.
H. H. Merriman, Lapeer.

LIVINGSTON—

C. L. Sigler, Pinckney.

LENAWEE—

A. W. Chase, Adrian.

MECOSTA—

C. F. Karshner, Big Rapids.

MARQUETTE-ALGER—

A. W. Hornbogen, Marquette.
V. H. Vandeventer, Ishpeming.

MUSKEGON-OCEANA—

B. R. Eastman, Muskegon.
W. L. Griffin, Shelby.
F. W. Garber, Muskegon.
I. M. J. Hotvedt, Muskegon.
Geo. L. LeFevre, Muskegon.

MANISTEE—

E. S. Ellis, Manistee.
J. A. King, Manistee.
L. S. Ramsdell, Manistee.
H. A. Ramsdell, Manistee.

MONROE—

L. C. Knapp, Monroe.
W. F. Acker, Monroe.
C. T. Southworth.

MACOMB—

H. G. Berry, Mt. Clemens.
J. M. Croman, Mt. Clemens.
E. J. Miller, Romeo.
W. R. T. Sharpe, Romeo.
M. C. Smith, Romeo.
George Waters, Memphis.

MONTCALM—

L. E. Kelsey, Lakeview.

MIDLAND—

E. J. Dougher, Midland.
J. H. Johnson, Midland.

OTTAWA—

T. A. Boot, Holland.
H. Boss, Holland.
Joe De Pree, Zeeland.
J. J. Mersen, Holland.
A. Leenhouts, Holland.
R. H. Nichols, Holland.
G. H. Thomas, Holland.

OAKLAND—

G. W. MacKinnon, Oxford.

ONTONAGON—

E. J. Evans, Greenland.
F. W. McHugh, Ontonagon.

PRESQUE ISLE—

W. W. Arscott, Rogers.

ST. CLAIR—

B. E. Brush, Port Huron.
J. L. Chester, Emmett.
T. F. Heavenrich, Port Huron.
Alex. J. MacKenzie, Port Huron.
O. B. Stockwell, Port Huron.

SAGINAW—

Geo. L. Alger, Saginaw.
D. E. Bagshaw, Saginaw.
N. R. Bradley, Saginaw.
J. D. Brule, Saginaw.
Geo. A. Bell, Saginaw.
W. H. Brock, Saginaw.
E. E. Curtis, Saginaw.
W. A. DeFoe, Saginaw.
W. F. English, Saginaw.
G. H. Furgeson, Saginaw.
L. B. Harris, Saginaw.
E. C. Kinsman, Saginaw.
M. Kollig, Saginaw.
A. E. Letch, Saginaw.

A. R. McKinney, Saginaw.
H. J. Meyer, Saginaw.
J. H. Powers, Saginaw.
E. P. W. Richter, Saginaw.
B. B. Rowe, Saginaw.
C. H. Sample, Saginaw.
J. T. Sample, Saginaw.

ST. JOSEPH—

W. E. Doran, Colon.
P. L. Hartman, Colon.
D. M. Kane, Sturgis.
J. R. Kingsley, Three Rivers.

SHIAWASSEE—

J. J. Haviland, Owosso.
A. M. Hume, Owosso.

SANILAC—

Hugh H. Angle, Snover.

TUSCOLA—

W. C. Garvin, Millington.

TRI COUNTY—

S. C. Moore, Cadillac.
R. J. E. Oden, Cadillac.
B. H. McMullen, Cadillac.
O. L. Ricker, Cadillac.
W. J. Smith, Cadillac.
A. E. Stickley, Mesick.

VAN BUREN—

G. F. Young South Haven.
F. S. Penoyer, South Haven.
O. M. Vaughan Jr., Covert.
J. W. Hawkey, Bloomingdale.

WASHTENAW—

N. B. Foster, Ann Arbor.
L. H. Newburgh, Ann Arbor.
Reuben Peterson, Ann Arbor.
C. L. Washburne, Ann Arbor.
H. W. Schmidt, Chelsea.

WAYNE—

R. C. Andries, Detroit.
W. L. Babcock, Detroit.
G. J. Baker, Detroit.
J. N. Bell, Detroit.
C. D. Brooks, Detroit.
H. R. Carstens, Detroit.
J. H. Dempster, Detroit.
G. E. Frothingham, Detroit.
C. W. Hitchcock, Detroit.
N. W. Hoskin, Detroit.
C. F. Kuhn, Detroit.
W. K. Kwiecinski, Detroit.
A. F. Jennings, Detroit.
C. G. Matthews, Detroit.
J. S. Matthews, Detroit.
J. O. MacMillan, Detroit.
E. W. Mooney, Detroit.
W. H. Morley, Detroit.
W. R. Parker, Detroit.
H. W. Pelree, Detroit.
H. H. Runo, Detroit.
F. R. Starkey, Detroit.
C. H. Stiles, Detroit.
J. W. Vaughan, Detroit.
W. T. Wilson, Jr., Detroit.
F. B. Walker, Detroit.
J. V. White, Detroit.
S. F. Wilson, Detroit.
Harold Wilson, Detroit.
R. Kirke Young, Detroit.
H. W. Yates, Detroit.

MEMBERS FROM OUTSIDE OF STATE—

T. J. Cree, Angola, Ind.
P. N. Sutherland, Angola, Ind.
Alex. R. Craig, Secretary A. M. A., Chicago.

Deaths

Dr. Marden Sabin of Centerville died on April 11th, at the home of his son in Battle Creek. For a half century Dr. Sabin had been engaged in the practice of medicine in the vicinity of Centerville and was highly esteemed by all who knew him.

Dr. C. P. Brown of Spring Lake died on May 4th, of pneumonia. He was a veteran physician of Ottawa county and was prominent in matters pertaining to public interests.

Dr. F. E. Ruggles of Bay City died on April 16th, after an illness of six days of pneumonia. He was 48 years old and was a resident of Bay City for twenty-two years. He was an influential and prominent member of the Bay County Medical Society and had gained a wide practice in Bay City. His death was a great shock to the community.

Dr. J. A. McPherson of Grand Rapids died after an illness of long duration. He was one of the best known physicians of this city having lived here since 1870.

We have also the report of the death of Dr. Wm. Dean Wilson of Detroit, Dr. Richmond Simmons of DeWitt and Dr. B. Scoville of Constantine, not members of the Society.

State News Notes

Announcement—On account of ill health and age, I must give up the practice of my profession. Will dispose of office equipment at a very low valuation. Good library, electrical apparatus and surgical instruments. Located in Lansing, Michigan. Address 427 Seymour street or 212½ South Washington avenue.

A. D. HAGADORN, M.D.

WANTED—A competent physician to locate in a thriving village of Western Michigan. For particulars address No. 20, care *Journal*, M. S. M. S., 513 Powers Theatre Building, Grand Rapids Mich.

The Modern Hospital (Chicago and St. Louis) announces that its June issue will be devoted to the subject of Occupational Therapy and Occupations for the Handicapped. The importance of this subject has not been sufficiently realized until com-

paratively recent times. Of late the nations at war have come to recognize the therapeutic and economic necessity of providing suitable occupations for those of their wounded and injured who are able to work. This necessity is just as urgent in the case of the handicapped class in civil life.

Among the subjects of important papers to be published in the Occupational Therapy number are "History of Occupational Therapy," by Dr. W. R. Dunton, Jr., assistant physician, Sheppard and Enoch Pratt Hospital, Towson, Md.; "The Potteries of Arequipa Sanatorium, an Experiment in the Re-education of Tuberculous Girls," by Dr. Philip King Brown, medical director of Arequipa Sanatorium, manor, Cal.; "Remunerative Occupations for the Handicapped," by Dr. Herbert J. Hall, physician in charge, Devereux Mansion, Marblehead, Mass.; "Occupation Therapy in the Mental Hospital," by Dr. A. H. Ruggles, first assistant physician, Butler Hospital, Providence, R. I.; "Occupation and Diversion of Tuberculous Patients," by Dr. A. T. Laird, superintendent Nopeming Sanatorium, Nopeming, Minn.; "Work in the Treatment of Insane Criminals," by Dr. Paul E. Bowers, medical superintendent Indiana Hospital for Insane Criminals; "Some Principles of Occupational Therapy," by Miss Elizabeth Upham, director of art department, Milwaukee-Downer College, Milwaukee; "The Inoculation of the Bacillus of Work," by Mr. George Edward Barton, director of Consolidation House, Clifton Springs, N. Y.

Another important feature of the June issue of *The Modern Hospital* is to be a paper prepared by Miss Alice F. Bell under the auspices of the department of nursing, Teachers College, Columbia University, on the standardization of records in training school for nurses. This is work for which there has long been a crying need. It is believed that the system outlined in this paper will be of epoch-making importance in nursing education.

The following telegram to Dr. Angus McLean of Detroit:

ORDER FOR SERVICE.

"Submit by telegraph to this office names of reserve officers under 35 years of age, who have accepted commissions for duty in Europe. Ten to sail in June, ten in July and ten in August. Select without regard to rank, but only those who will be a credit to the service. Names of the reserve officers to be in this office at least fifteen days prior to the first of the month in which they are to sail. Officers should provide themselves with field equipment."

The war department has decided to send 1,700 doctors from this country to the battlefields and Michigan's quota is thirty. Lieutenant Colonel Mc-

Lean has not selected the first ten Detroit doctors to go, but he expects to have the list ready by Monday. There are a number of Detroit doctors anxious to get the first assignment to France and Dr. McLean could pick a much larger number of surgeons than demanded by the war department without any trouble. General Gorgas demands the doctors selected shall not be older than 35 years.

Lieutenant Colonel McLean received a telegram from Major Stephenson of the military headquarters of the central division at Chicago Friday, which makes it apparent his base hospital unit will be ordered to the front as soon as it is ready.

TELEGRAPHIC INSTRUCTIONS.

The telegram is as follows:

"Wire immediately name of medical reserve officer of your staff for active duty to recruit enlisted personnel of base hospital No. 17."

Dr. McLean immediately appointed Major George Kean, director of the medical division, of Harper Base Hospital Unit No. 17, and he will go into active duty Saturday. He will be assisted by Drs. Alexander Stirling and John C. Dodds. The work of physically examining the enlisted personnel of Harper Base Hospital unit will start Saturday at Harper hospital.

Members of the board of trustees of the Children's Free hospital announce the appointment of thirty-six doctors to its medical staff. Following are their names and the departments to which they have been assigned:

Drs. C. G. Jennings, Hugo Freud, A. D. Holmes, A. P. Biddle, Charles W. Hitchcock, Guy L. Kiefer, consulting physicians; Drs. T. A. McGraw, J. K. Gailey, Max Ballin and Daniel La Ferte, consulting neurologist; Dr. B. R. Hoobler, director of medical service; Drs. Grant McDonald, Frederick B. Burke and J. H. Polozker, attending physicians; Dr. George Sewell, skin and contagious diseases; Dr. Walter King, pathologist and bacteriologist; Dr. H. A. Reye, neurologist; associates, Drs. H. A. McFayden, Worth Ross, George Van Rhee; Drs. A. D. McAlpine, H. N. Torrey, W. J. Cassidy, G. C. Pemberthy, A. F. Naylor, A. M. Sterling and H. S. Karr, general surgical service; Drs. F. C. Kidner and A. D. LaFerte, orthopedic service; Drs. B. R. Shurly, W. A. Defnet, laryngological service; Drs. Walter R. Parker, Ray Connor, G. M. Waldeck, ophthalmology and otology.

Unit of twenty surgeons from all over the United States in command of Major J. E. Goldthwait of Boston go to England to do reconstructive surgery under Major General Robert Jones of Liverpool. Major General Jones is in charge of all the reconstructive surgical work of England.

The unit will be placed on active duty in the hospitals. They go in answer to a direct appeal from the English Medical Service for more trained men in orthopedic surgery. Dr. Goldthwait will study conditions in England and France and will

then return to America to organize re-constructive hospitals for the American Army. When this is done, the surgeons accompanying him will probably be brought back to take charge of these institutions. Dr. F. C. Kidner of Detroit was the only man selected from Michigan to accompany this unit.

Insurance Policies.—We urge that every member entering the Reserve Corps take his life insurance policy to the agent of the company and have its war clauses interpreted. Do not neglect to maintain your protection or invalidate your policy. Insurance companies are also issuing special policies covering war risks. Be sure and investigate these provisions and secure the proper endorsements.

We are arranging to have a correspondent with each of the two Detroit Base Hospitals and with the Grand Rapids Hospital Unit. We also will be pleased to receive communications for publication from other members in the service. The men at home will be interested in your work.

The Alumni Clinic Week of the Detroit College of Medicine and Surgery has been abandoned for this year. The annual meeting of the Alumni is to be held Friday evening, June 1st. Commencement exercises will be held on the evening of June 2.

Dr. Frederick R. Waldron of Ann Arbor announces the opening of offices in the David Whitney building, Detroit. Practice limited to the treatment of genito-urinary diseases.

Dr. Leo C. Donnelly announces his return from France and the opening of offices at 727 Jefferson avenue East, Detroit. Practice limited to orthopedic surgery and X-ray diagnosis.

The sixty-eighth annual meeting of the American Medical Association will be held in New York City, June 4 to 8. In place of the President's reception it is planned to hold a patriotic meeting.

Do not forget to patronize our advertisers. Now if ever do they merit your patronage because they are making your journal possible. With the high cost of all commodities we need this support from our members.

Dr. H. M. Hume of Owosso was elected Vice-President of the American Railway Chief Surgeon's Association at the annual meeting held in Chicago, May 7th.

Dr. Wilfrid Haughey and Dr. J. T. Case have been appointed as members of examining board for the Medical Officer's Reserve Corps for Battle Creek and vicinity.

Dr. Carl Moll of Flint has been appointed Local Surgeon of the Pere Marquette R. R., vice J. G. R. Manwaring resigned.

FOR SALE—Betz No. 1, Static and X-ray Machine in good condition at half price. Apply: Dr. J. M. Stone, Honor, Mich.

The American Proctological Society will hold its annual meeting in New York, Hotel Astor, June 4 and 5.

Dr. A. S. Warthin, Ann Arbor, was one of the essayists at the annual meeting of the Illinois State Medical Society held in Bloomington on May 9th.

Dr. J. C. Kenning, attached to Grand Rapids Naval Militia has been ordered to report for duty on May 30th.

Dr. C. C. Slemons has been appointed full time health officer under the new commission form of government in Grand Rapids.

Dr. J. T. Case of Battle Creek has been made an honorary member of the Academy of Medicine of Porto Rico.

Dr. W. D. Meller, assistant superintendent of the Traverse City State hospital has been granted a leave of absence to enlist in the army medical corps.

Dr. M. M. Wickware of Caro has been appointed Supreme Medical Examiner of the Gleaners in place of Dr. S. F. Chase.

Dr. W. De Kleine has been elected as Health Officer of Flint.

The State Homeopathic Society held its annual meeting in Detroit on May 4th.

County Society News

ALPENA COUNTY

The Alpena Medical Society enjoyed another of their monthly banquets at the Alpena House, Thursday, April 19. Drs. Bell and Small were the hosts to the fifteen members who sat down to dinner at 6 p. m. Dr. H. Spencer of the United States Public Health Service was a guest of the society, and gave an interesting description of the work of his department.

All the members of the Society under the age of 55 have signified their willingness to serve on the Medical Reserve force. They were urged to complete their application, and get in a position where the government could use them on short notice.

Dr. Leo Secrist read an interesting paper on the value of climate in the treatment of tuberculosis.

Dr. John Purdy described the work of the Tuberculosis Survey of the State Board of Health, with which he had spent several weeks.

Drs. Schmalers and Bertram were assigned papers

for the next meeting. Drs. McKnight and W. A. Secrist to entertain.

The regular monthly meeting of the Alpena Medical Society was held at the Alpena House, Thursday, May 17 at 6 p. m. Drs. E. E. McKnight and W. A. Secrist were the hosts at dinner. Those present were: Fred Nevis, Posen; Wm. Arscott, Rogers City; John Purdy, Long Rapids; A. R. Miller, Harrisville; A. J. Schmalers and George Lister, Hillman; and from Alpena, J. D. Dunlop, D. A. Cameron, E. E. McKnight, W. A. Secrist, James Small, Otto Bertram, F. J. McDaniels, Leo Secrist and C. M. Williams.

The program of the evening consisted of a paper on the Treatment of Syphilis by R. J. Schmalers of Hillman and one on the Business Side by Otto Bertram of Alpena.

Both papers called out vigorous discussions. Case reports were also presented by Wm. Arscott, A. R. Miller, and Fred Nevis.

Drs. Miller and Small were appointed to present scientific papers at the next meeting, June 21. Dr. Lister and Bertram were appointed to entertain.

C. M. WILLIAMS, Secretary.

BRANCH COUNTY

The regular quarterly meeting of the Branch County Medical Society was held at Library Hall, Coldwater, Tuesday, April 17, 1917. The following business was transacted:

Moved and carried, that the annual picnic be held at Morrison Lake, at the time of the next regular meeting, Tuesday, July 17th. Dr. Samuel Schultz offered the use of his spacious cottage for the occasion, and the offer was unanimously accepted.

Upon motion, a committee was appointed, consisting of Drs. F. W. Stewart, W. A. Griffith and W. H. Baldwin, to revise the schedule of fees to meet the existing cost of living, and present the same to all physicians for signature.

Communication from President and Secretary of the State Society, relative to special meeting to be held at Battle Creek, May 10th, presented, and regular delegates instructed to attend.

The following excellent papers were presented: "The Doctor and the High Cost of Living," Dr. F. W. Stewart; "Genito Urinary Surgery," Dr. D. H. Wood; "Diphtheria Anti-toxin," Dr. N. Baldwin.

W. H. BALDWIN, Secretary.

BERRIEN COUNTY

At the last regular meeting held May 17, the Society unanimously voted in favor of any action the State Society should see fit to take toward the relief of the dependents of members of the State Society who enter the military service.

Dr. C. V. Spawr (now Lieut. S. G. U. S. Naval Reserve on duty on U. S. S. Baron de Kalb) was elected a member of the Society.

W. P. MORRILL, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The Gratiot-Isabella-Clare County met as per the enclosed program. Sixteen members and two visitors were present. Dr. J. N. Day, Jr. of Alma was elected to membership; Dr. C. D. Pullen of Mt. Pleasant was elected delegate to the State Society meeting and C. B. Gardner of Alma Alternate. Dr. C. F. Pankhurst of North Star was appointed to act for Gratiot, Dr. C. D. Pullen of Mt. Pleasant for Isabella, and Dr. J. A. Reeder for Clare in the prosecution of a quack by the name of A. Bernard. So much time was taken up in the discussion of the latter case and medical preparedness that Dr. J. A. Reeder's paper on Rural Surgery was put over until the next meeting.

PROGRAM.

Call to order by President.

Application for Membership.

Clinic—The Diagnosis of Hodgkins Disease with Exhibition of Slides, by Dr. M. F. Bronstetter; Medical Preparedness, by Dr. C. D. Pullen; Rural Surgery, by Dr. J. A. Reeder.

Election of delegates and alternates to State Society Meeting.

Unfinished business.

Payment of dues.

E. M. HIGHFIELD, Secretary.

HOUGHTON COUNTY

The May meeting was held at the Houghton Club, Houghton, Mich., and was a joint meeting of the Medical and Dental Societies of Houghton County. The program was as follows:

Dental Radiographs,

Dr. W. T. S. Gregg.

Treatment of Root Canals,

Dr. E. J. Chaput.

The Relation of Tooth Infection to the General Health,

Dr. D. D. Todd.

Discussion of Medical Preparedness.

There were fifty in attendance and everyone attested to the excellence of the program.

J. H. HOLMES, Secretary.

KALAMAZOO ACADEMY OF MEDICINE

The Kalamazoo Academy of Medicine convened for its regular meetings on April 24, 1917 and on May 8, 1917 with the President, C. B. Fulkerson, in the chair. The minutes of the previous meetings

were approved as read. On April 24, 1917 the Academy enjoyed the following program.

1. The Relation of Intestinal Conditions to Constitutional States and the Methods of Treatment. Lantern Slide Demonstration

Dr. Charles A. L. Reed, Cincinnati, Ohio,
Professor of Gynecology.

General discussion.

2. "Sex" Its Cause and Its Consequence in Inheritance. Lantern Slide Demonstration.

LeRoy H. Harvey, Ph.D., Kalamazoo.
Western State Normal.

General discussion.

On May 8, 1917, Dr. Frederick Novy of the University was the guest of the Academy and the program for the day was as follows:

1. Anaphylaxis.

Dr. Frederick Novy, Professor of Bacteriology,
University of Michigan.

Discussion opened by W. A. Perkins and F. C. Penoyer.

2. The Bacteriological Studies of the Extirpated Tonsils in 234 Tonsillectomies.

W. A. Perkins.

Discussion opened by Dr. F. G. Novy.

Brief abstracts of previous papers follow:

DISORDERS OF THE ESOPHAGUS.

By Dr. J. B. Jackson, Kalamazoo.

For the purpose of this report the following classification of esophageal disorders has been made:

1. Intrinsic disease of the esophagus.

(A) Organic.

(a) A congenital atresia.

(b) Diverticulum.

(c) Neoplasm.

(d) Stricture.

(B) Functional disease of the esophagus.

(a) Cardiospasm.

2. Disease processes outside of the esophagus.

(A) Aortic aneurysm.

(B) Neoplasms adjacent to the esophagus.

Congenital atresia to be distinguished from congenital stricture without complete closure. The lower end of the esophagus usually communicates with the trachea. Diverticula are two kinds: the pulsion diverticulum of Zenker and the traction diverticulum. Zenker's diverticulum is amenable to surgical treatment. Of the neoplasms, carcinoma is the most frequent. These are characterized by rapid progress and tendency to ulcerate. Sarcoma and diffuse fibro-myoma have been reported. Strictures are either congenital or traumatic. They are usually due to corrosive poisons.

Cardiospasm has been best described by Plummer, who reports a large number of cases. He describes three stages: (1) Cardiospasm without food re-

gurgitation; (2) Cardiospasm with immediate food regurgitation; (3) Cardiospasm with dilated esophagus and retention of food for varying intervals of time. The etiology is obscure. The possible relation of cardiospasm and spondylitis has been suggested by Dr. A. W. Crane.

Dysphagia due to aneurysm and mediastinal tumors is ordinarily readily differentiated from intrinsic disease of the esophagus on account of the presence of other important symptoms.

Methods of diagnosing these cases include X-ray, esophagoscope, the threaded olive bougie and the stomach tube.

CASE REPORTS.

- Case 1. Congenital atresia.
- Case 2. Zenker's diverticulum.
- Cases 3, 4, 5. Cancer of the esophagus.
- Case 6. Cancer of the cardiac end of the stomach.
- Case 7. Cardiospasm with dilatation of the esophagus.
- Case 8. Cardiospasm.
- Case 9. Cardiospasm with dilatation of the esophagus.
- Cases 10, 11. Foreign bodies in the esophagus.
- Case 12. Neoplasm of the trachea making pressure on the esophagus.

THE PSYCHOLOGY OF ALCOHOLIC INTOXICATION.

By Dr. R. A. Morter, Kalamazoo.

In the past too much stress has been laid on accumulating statistics as to the manufacture and consumption of alcoholic beverages. Too much stress has been laid on the effect of alcohol in causing insanity, also in causing weakness and disease in offsprings. The individual psychology of the inebriate has not been studied. We have not asked ourselves "Why does this man crave alcoholics?"

The use of alcoholics is deeply rooted in primitive people and alcoholic intoxication has played an important part in the history of mankind. Religious leaders have become intoxicated in order to induce a mental state in which they could see visions, make prophecies and profess to drive out evil influences and disease. It has been used at marriages to promote pleasure and excitement. At death and at funerals it has been the custom to become intoxicated in order that there might be artificial excitement and weeping. The primitive races and tribes used it in a social way to assist in the amalgamation of the tribes and to foster co-ordination within its groups.

Physiologically alcohol in small doses shortens the reaction time and increasingly so with an increase of the dosage up to a certain limit. After the limit is reached it depresses all activities. Alcohol when taken into the stomach in strong solutions reflexly, by its irritant action, increases the heart

action and raises blood pressure. Alcohol today is not considered to stimulate any portion of the cardiovascular system. Indeed, there is much evidence that it does just the contrary.

The effect of alcohol upon the psychic differs greatly in different individuals. In general it may be said that alcohol excites nervous tissue. It stimulates inhibition; it excites the personal, the intimate self, takes off the temper, so to speak, and brings out in a man that which he essentially is. He takes an optimistic view of life, tells interesting details which he had held back as trivial and uninteresting.

Normal and abnormal individuals drink alcohol, but the extent of their imbibing differs greatly. The normal man uses alcoholics in order to make himself fit into society and to be congenial. In his efforts to adjust himself to his environment he would take a drink in a social way if it were the custom, but would not become intoxicated. The abnormal individual is a type of organism that favors the acquisition of the habit of excessive or morbid use of alcohol. This type may be divided into two classes—the undeveloped, and the degenerate.

The first class, the undeveloped or mentally defective, are all suggestible, irresponsible individuals who do not realize the value of inhibition. To this class belong the simple inebriates. About 65 per cent. of these are lacking in mental development and may be classified as Morons.

The second class, the degenerate, oversensitive, or otherwise morbid, nervous organization commonly possess qualities which go with culture and high ideals, but they lack balance. This class is subject to mental conflicts and drink because of definite returns which they get from drinking.

In Charles Lamb's essay, "The Confession of a Drunkard," he tells of his own hereditary taint and describes his conflicts and mental depressions and states that he sought the effect of intoxication to escape these. Edgar Allen Poe's writings also show that he sought alcoholics for the same purpose. Others drink alcoholics in order to take off inhibition and thus relieve them of bashfulness or shyness. Of those admitted to the Michigan state hospitals during one year 62 per cent. used alcoholics and in the majority of these the alcoholic excesses were the expression of a psychosis. Cases which were formerly diagnosed as alcoholic insanity have turned out to be manic depressive and dementia praecox. Alcoholism is not always a symptom, but we should analyze our cases more thoroughly. We should ask ourselves "why" and not be too quick to call a mental disease an alcoholic psychosis just because we have a history of alcoholic excess. It is not the alcohol itself but the motives for its excessive use that must be attacked.

SHIAWASSEE COUNTY

A special meeting of this society was held in Owosso on May 15th at which Dr. H. S. Hatch, of the State Tuberculosis Survey staff read an instructive paper on "The Early Diagnosis of Tuberculosis." Dr. Wm. DeKleine, Director, and Dr. E. R. Vander Slice, another staff member were present, and a fair attendance of members. The paper and discussion was of much benefit to all, and every doctor present carried away some new ideas on an old subject. The tubercular survey in Shiawassee county was a very great help to both laity and the medical profession.

W. E. WARD, Secretary.

Book Reviews

TRAUMATIC SURGERY by John J. Moorhead, M.D., F.A.C.S. Adjunct Professor of Surgery in the New York Post-Graduate School and Hospital. Octave volume of 760 pages with 522 original illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth \$8.50 net. Half Morocco, \$8.00 net.

This work is an excellent presentation of the surgery of traumatic conditions. In fact it is the most complete and satisfactory presentation of the subject. Would that every physician who is called upon to treat industrial injuries might have the benefit of the principles and treatment outlined. There would then follow a higher grade of industrial surgery and less permanent results due to bungling treatment.

The chapter on fractures is excellent but would be improved with a little more attention to treatment. The text on traumatic neurosis is an able discussion of this important feature of accidental injuries. The chapter on medicolegal phases is enlightening on the whole and directs attention to the care that should be exercised when attending compensation cases. The work should and will meet with a cordial reception.

THE SURGICAL CLINICS OF CHICAGO, Volume I, No. 2, April, 1917, with 99 illustrations. Published bi-monthly. W. B. Saunders & Co., Philadelphia.

This issue of the new series is of considerable interest and merit. We are inclined to the opinion that eventually the series will be equal in value to the famed Murphy Clinics.

Miscellany

STATE COMMITTEE OF NATIONAL DEFENSE—MICHIGAN.

*Peterson, Reuben, Chairman, 620 Forest Ave., Ann Arbor.

Biddle, A. P., President, State Med. Soc., David Whitney Bldg., Detroit.

Warnshuis, F. C., Secretary, State Med. Soc., Powers' Theatre Bldg., Grand Rapids.

President-elect, State Med. Society.

Secretary-elect, State Med. Society.

Ballin, Max, 355 Woodward Ave., Detroit.

Burkhart, John L., Sec., State Board of Health, Lansing.

*Case, J. T., Battle Creek Sanitarium, Battle Creek.

*Hafford, Dr., Albion.

*Haughey, Wm. H., Battle Creek, 24 W. Main St.

*Hornbogen, A. W., Savings Bk. Bldg., Marquette.

Jennings, Dr., 435 Jefferson Ave., E. Detroit.

*Nancrede, C. B. G., Cutting Apartments, Ann Arbor.

Manwaring, J. G. R., Dryden Bldg., Flint.

McClure, Roy, Detroit.

*McLean, Angus, David Whitney Bldg., Detroit.

Parker, Walter R., 1025 Whitney Bldg., Detroit.

Smith, Eugene, 32 Adams Ave., W., Detroit.

*Smith, Richard R., Metz Bldg., Grand Rapids.

*Vaughan, Victor C., 221 State St., Ann Arbor.

*Wile, Udo, University Hospital, Ann Arbor.

*Examiners.

ADVANTAGES OF GERMICIDAL SOAP.

On solution in water Germicidal Soap (McClintock) liberates a small quantity of free alkali. This prevents the coagulation of albumin and permits the mercuric iodide contained in the soap to thoroughly penetrate bacterial and tissue cells.

Germicidal Soap is a valuable disinfectant in surgery, in gynecology, in obstetrics, and in routine practice. It is not only detergent, but it is a lubricant for sounds and catheters. It is always ready for use. No weighing or measuring is necessary. There is no waste. Hands, instruments and field of operation are quickly disinfected with the one material.

Germicidal Soap does not attack nicked or steel instruments, as does bichloride of mercury. It will not cause numbing of the hands as does carbolic acid.

Germicidal Soap is supplied in two strengths: Germicidal Soap, two per cent. mercuric iodide—large cakes, one in a carton; Germicidal Soap, Mild, one per cent. mercuric iodide—large cakes, one in a carton—small cakes, five in a carton; Germicidal Soap, Soft, one per cent., in collapsible tubes; and Germicidal Soap Surgical, one per cent., in cylindrical cakes wrapped in perforated paper and enclosed in a nickel-plated case. It is well to specify "P. D. & Co." in ordering.

Sterling Violet Ray Generator.—This is a small frequency apparatus with some vacuum and possibly other electrodes. The apparatus is not one for producing violet or ultra-violet rays in the scientific meaning of those words. The apparatus will not do the things claimed for it in the advertising booklet which includes the treatment of practically every ailment known to mankind (*Jour. A.M.A.*, April 14, 1917, p. 1141).